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ELEVENTH ANNUAL REPORT

Navigation Conditions on the Hudson Bay Route from the Atlantic Seaboard to the Port of Churchill

SEASON OF NAVIGATION 1939

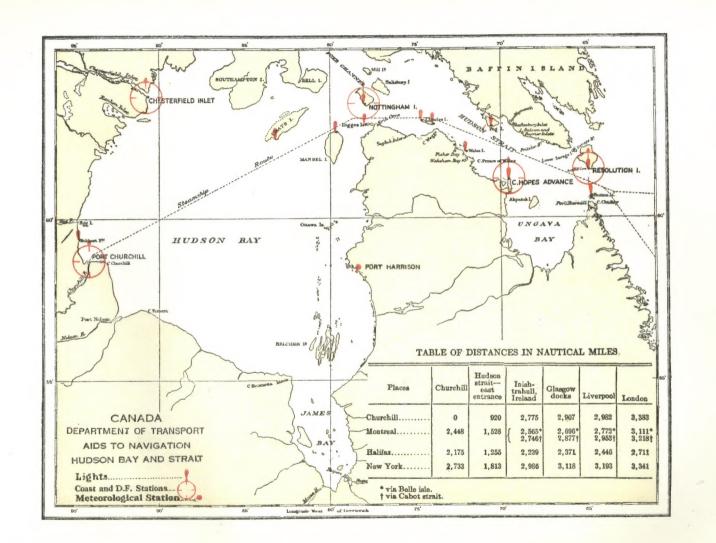
DEPARTMENT OF TRANSPORT

HON. C. D. HOWE, Minister

OTTAWA J. O. PATENAUDE, I.S.O. PRINTER TO THE KING'S MOST EXCELLENT MAJESTY 1940









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CONTENTS

	PAGE
Letter of Transmittal	4
Synopsis	
Opening of Navigation	5
Close of Navigation	5
Foxe Channel Ice	6
Fog	6
Aids to Navigation	6
Shipping	7
Ships' Reports—	
C.G.S. N. B. McLean	8
R.M.S. Nascopie	11
S.S. Wentworth	12
S.S. Troutpool	15
Port of Churchill—	
Mercantile Marine Vessels Berthed	16
Imports and Exports	16
Traffic	16
Hydrographic Information	17
Meteorological Reports—	
C.G.S. N. B. McLean	18
Resolution Island	20
Cape Hopes Advance	24
Nottingham Island	26
Churchill	32
Chesterfield Inlet	38
Port Harrison	42
Aids to Navigation—	
Radio Stations	48
Patrol Ship	49
Navigation Lights	49
C.G.S. N. B. McLean—Dimensions and Equipment	50
Glossary of Ice Navigation Terms	51
ILLUSTRATIONS	
Chart of Hudson Bay and StraitFronti	<i>вріесв</i>
Beacon Light, Churchill Elevator	16
M.V. Charles L-D Approaching Dock, Churchill	16 16

V. I. SMART, Esq.,
Deputy Minister, Department of Transport,
Ottawa, Ontario.

Sir-I have the honour to submit the Eleventh Annual Report on Navigation Conditions on the Hudson Bay Route from the Atlantic Seaboard to the Port of Churchill. This report covers the season of navigation, 1939.

The report is compiled from information received from the Department of Transport vessel N. B. McLean, the Hudson's Bay Company R.M.S. Nascopie, the National Harbours Board, the Meteorological and Radio Services of the Department of Transport, and Mercantile Marine vessels plying on the route.

Yours respectfully,

C. P. EDWARDS, Chief of Air Services.

DEPARTMENT OF TRANSPORT, OTTAWA, March 26, 1940.

Eleventh Annual Report

Navigation Conditions on the Hudson Bay Route from the Atlantic Seaboard to the Port of Churchill, Season of Navigation, 1939

Synopsis of Report

OPENING OF NAVIGATION

The change from winter conditions extended, as usual, over a period of several weeks and during that time the quantity and state of drifting ice varied from day to day according to the influence of winds and currents.

The dates of the final disappearance of ice from the vicinity of the reporting stations were as follows:—

Hudson Strait, East End Resolution Island	August 5
Hudson Strait, Central Cape Hopes Advance	August 16
Hudson Strait, West End Nottingham Island	August 8
Hudson Strait, General—Th on her passage throug of Hopes Advance on t	te only ice observed by the C.G.S. N. B. McLean the Strait was a narrow strip 50 miles NNW the night of August 4.
Hudson Bay	

Churchill	. July	16
Chesterfield Inlet	. July	15
Port Harrison	July	15

CLOSE OF NAVIGATION

Hudson Bay

Port Harrison—Only occasional slob ice reported up to November 30.

Chesterfield Inlet—Considerable amount of slob ice reported between October 19 and November 12; no ice visible between latter date and end of month.

Churchill—Ice first reported in River on October 13. From that date conditions were very variable until November 30 when there were only few patches open water in Bay.

99631-21

Hudson Strait

Nottingham Island—Ice beginning to appear November 18 and at end of month there was scattered ice to westward.

Cape Hopes Advance—Station closed for season September 30. No ice. Resolution Island—No ice reported until end of November when there was "scattered ice in all directions." Bergs and growlers were fairly numerous here all season.

Full information regarding ice conditions will be found under Meteorological Reports, pages 18-47.

FOXE CHANNEL ICE

No information regarding ice debouching through Foxe Channel into the route of navigation was received during the season under review.

FOG
The hours of fog reported during the season were as follows:—

	July	Aug.	Sept.	Oct.	Nov.	Tot	als
	July	Aug.	сері.		1404.	1939	1938
Resolution Cape Hopes Advance* Nottingham Island Churchill Chesterfield Port Harrison	163 209 30 22 149	58 9 62 54 76 1	155 52 78 32 0	45 0 0 0 2 17	32 7 31 8 6	356 147 108 280	652 221 175 160 243

^{*} Reopened for season August 3; closed September 30.

AIDS TO NAVIGATION

Radio

There are five radio direction finding stations on the Hudson Bay Route. Four were in operation during the whole year, the exception being Cape Hopes Advance station which opened on August 3 and closed down September 30.

The stations at Resolution, Cape Hopes Advance and Nottingham were recalibrated by the C.G.S. N. B. McLean and the correction tables modified in accordance with results.

Detailed information regarding Radio Aids to Navigation will be found on page 48.

Hydrography

No additional charting or other operations were carried out during the past season. Publications of the Hydrographic Service, Department of Mines and Resources, relating to the Hudson Bay and Strait are listed on page 17.

Lights

There were no additions to the lights the numbers remaining at two watched and ten unwatched, a total of twelve lights, a list of which will be found on page 49.

Fog Signals

The explosive bomb signal which was installed at Resolution in 1935 is still in operation. It can be heard at a distance of between five and six miles and is fired at intervals of ten minutes on request by ships approaching Acadia Cove.

SHIPPING

Five cargo boats, one of which the Wentworth made a double trip, entered the Port of Churchill during the season and cleared with wheat cargoes.

This compares with three cargo boats using the Port last season.

The first boat to arrive was the Wentworth which docked on August 12 and cleared on August 17.

The last boat to arrive was also the *Wentworth*, arriving on her second trip on September 19 and leaving on September 21.

The Department of Transport patrol boat N. B. McLean arrived off Resolution on July 30 and proceeded through Hudson Strait to Cary's Swan Nest, Coats Island, landing relief wireless operators at different points, servicing beacon lights and performing other duties en route. She also established contact with the several cargo boats as they entered the Strait and sailed from Resolution for Quebec, P.Q., on October 2. See Report on page 8.

No incident of note occurred during the season and navigation proceeded normally.

C. P. EDWARDS,

Chief of Air Services.

C.G.S. N. B. McLEAN, CAPTAIN W. J. BALCOM, MASTER, VOYAGE TO HUDSON STRAIT AND BAY, 1939

MASTER'S REPORT

GENERAL

The C.G.S. N. B. McLean sailed from Quebec at 4.20 a.m. July 25, making her tenth annual voyage to Hudson bay and Strait. She carried a radio engineer, relief operators, supplies for the various wireless stations and lighthouses, medical officer and supplies for the season's work in Hudson strait.

Good progress was made down the river and the ship arrived off Father point at 7.10 p.m. where we landed Mr. R. Newman of the Canadian Marconi Company, who had been installing and calibrating the new Direction Finder MDF-3. He was taken off by the SS. Citadel and the ship then carried on her voyage, arriving off West point, Anticosti island, at 9 a.m. July 26, where a stop was made for several hours while swinging the ship and making a calibration chart for the new Direction Finder. This was completed at 1.00 p.m., ship then resuming her course. Fog was met in the vicinity of Greenly island and continued throughout the strait of Belle Isle. We passed through Belle Isle strait at 1.00 a.m. July 28, in dense fog and were unable to make the usual survey of bergs in that vicinity so headed north and at noon were at latitude 52.45 north, longitude 55.07 west. Fog continued throughout the following day, cleared at 6.00 a.m. July 29 and remained clear until our arrival off Resolution island at 10.15 p.m. July 30, when the fog became thick again and we laid off Resolution island until 8.00 a.m. the next morning, July 31, and then dropped anchor in Acadia cove.

Landing of supplies and relief operators was begun immediately and carried on until 8.00 a.m. August 1, when the radio station being ready for calibration a start was made outwards to begin this work. Calibration was finished at 3.00 p.m. and the ship returned to harbour, picked up the radio engineer and work party and departed for cape Hopes Advance at 6.00 p.m. No pan ice was sighted but bergs were quite numerous and the ship arrived off the radio station at cape Hopes Advance at 10.15 p.m. August 2. Boats were immediately lowered and supplies and personnel were landed ashore and began to work to place in operation the radio station which had been closed since October 12, 1938. Good progress was made with this work and station was ready for operation and calibration at 12.30 p.m. August 3. The ship left anchorage for calibrating the station and this was completed satisfactorily at 5.40 p.m. August 3. The ship then returned to anchorage, picked up the radio engineer and work party and sailed for Nottingham island at 8.00 p.m. August 4. On August 5 a stop was made at Wales island to service and put in operation the light. This was completed at 10.00 p.m. and the ship continued westward to cape Moses Oates, Charles Island, where similar work was performed and also at the west end of Charles island, this being finished at 9.00 p.m. August 6. The McLean then headed towards the radio station at Nottingham island, arriving there at 6.35 a.m. August 7. Operators and supplies were landed at the station, direction finding equipment calibrated and ship left for Eric cove at 7.20 p.m. August 8, arriving at the anchorage there at 9.45 p.m. August 8.

The ship remained at Eric cove until 10.00 p.m. August 9 when we left to meet the SS. Wentworth, having in the meantime boated twenty surf-boat loads of fresh water. We met the Wentworth at 10.30 p.m. that evening and went

along with her to Coates island where we left her and headed into Cary's Swan Nest where the light was serviced and put into operation, leaving from there at 6.00 p.m. for Mansel island. We met the SS. Troutpool at 5.00 a.m. August 11 off Mansel island after which we returned to the beacon, overhauled and lighted same and left at 10.15 a.m. August 11 for Digges island passage where we stayed until August 14, leaving for Nottingham island to complete landing of supplies and rigging of masts. We remained at Nottingham until August 16 when the wind came strong from the south, increasing to gale force. We left for shelter at the harbour at Nuvuk and anchored there until 5.30 p.m. August 17, when we sailed for Digges island passage to obtain fresh water and remained there boating fresh water until 2.30 a.m. August 20, sailing outwards to meet the SS. Wentworth who was bringing mail and packages for crew and stations. After securing same we proceeded to Nottingham island, where mail for the personnel was landed, and took aboard Radio Engineer McLean and two assistants and departed for cape Hopes Advance, stopping on the way to service the light at Ashe inlet and going from there to Wakeham bay where the MV Nouveau Quebec was awaiting our arrival to supply her with some fuel oil but, on our arrival, found that she had departed.

The ship departed from Wakeham bay and a short call was made at cape Hopes Advance to land mail and thence across to Resolution island, arriving there at noon August 24. The McLean remained at Acadia cove, Resolution island, where the balance of the coal was discharged and the crew worked continuously on rigging until September 2, when radio engineer and crew were again taken on board and the ship returned to cape Hopes Advance. On our arrival Engineer McLean and two men of the crew stayed to continue work on the rigging there, ship proceeding to Wakeham bay where tanks were filled with fresh water and ship was painted battleship grey, leaving there on the evening of September 6 for the western end of the Strait. On September 8 we were at Igugivik and from that port sailed outwards to meet the SS. Ainderby who had mail for us. The mail was transferred to us and the McLean sailed to Nottingham where mail and packages were landed for the radio station, leaving Nottingham to a rendezvous with the SS. Charles LD who passed outwards off Digges island at 8.00 p.m. September 11. The McLean remained in this vicinity until September 17 having very bad weather meanwhile which necessitated our changing anchorage to obtain shelter, so on the 17th we headed towards Sugluk harbour where there is a good anchorage. We left Sugluk on the evening of the 23rd to meet the SS. Wentworth carrying mail and packages. This was transferred and the McLean returned to Sugluk on the 24th.

Having received orders to proceed to Quebec a departure was made from Sugluk on September 28, and we sailed for Eric cove. From Eric cove the ship passed over to Nottingham island and Operators E. Clare and C. Davies were taken aboard. Leaving Nottingham for cape Hopes Advance a short stop was made at Wakeham bay and we arrived at the cape at 12.30 a.m. October 1. Conditions being favourable we took off Radio Engineer McLean and personnel of staff; the wireless station was closed for the season and we departed for Resolution island anchoring there at 12.45 p.m. October 1. Boats were lowered and commenced to land coal and other supplies after which Operators W. Hopkins and E. Ginn were taken on the ship. The landing of supplies was finished that night and the *McLean* left at daylight the following morning, October 2, for Quebec.

We made a fast passage down the Labrador shore with strong northwest winds and following sea. Owing to snow and poor visibility we were unable to observe the coastline coming down and arrived off the north end of Belle isle at 3.00 a.m. October 4, having made the passage in 44 hours. Strong head winds were encountered from Belle isle westward to cape Whittle but from there to Father point conditions were favourable and without further incident ship docked at Kings Wharf, Quebec, at 10.00 a.m. October 6.

ICE CONDITIONS

Ice conditions in Hudson bay and Strait were very good during the official season of navigation and all ships passed inwards and outwards without assistance from the N. B. McLean other than direction. Ice did not make its appearance off Wolstenholme until the latter part of November 1938 and the harbour did not freeze until November 30, clearing out this year on July 2, but some ice was observed in the Strait until July 19.

On our passage up the Labrador coast and through the Strait no pan ice was sighted until fifty miles northnorthwest of cape Hopes Advance when a long narrow strip of ice was met with its southern edge ten to fifteen miles off the south coast. This looked quite formidable at first but on investigation proved to be only a narrow strip and quickly disappeared. Bergs were quite numerous in the early part of the season, especially in the eastern end of the Strait, between Resolution island and cape Hopes Advance, but quickly thinned out and towards the end of the season were widely scattered.

The route across the Bay was quite clear all through the season except in the early part ships had to steer to a position latitude 59.57 north, longitude 91.21 west to clear north edge of ice field; but this quickly passed southward and ships could then steer direct for Churchill.

The weather conditions were very good until September 20 when snow began to fall and was very prevalent during the remainder of the season.

SHIPPING

Six large cargo boats with a gross tonnage of 25,452 tons passed inwards and outwards through Hudson strait this season. The ships, in the order of their arrival, were the steamships Wentworth, Troutpool, Ashworth, Ainderby, the motor vessel Charles LD and the Wentworth who made a second trip. Only one of these ships carried inward cargo, the Wentworth who on her first voyage, brought approximately 984 tons of general cargo and 300 tons of coal but outward cargo amounted to approximately 1,777,000 bushels wheat. All ships made good passages and had little difficulty from ice.

Other ships on this route this year were the Hudson's Bay Company SS. Nascopie; the Roman Catholic Mission MV. Marie Therese. the MV. Nouveau Quebec and the motor schooner Agnes D. McLashen. None of these ships experienced any difficulty in making their respective voyages.

RADIO STATIONS

All the Radio Stations in Hudson strait this year were calibrated by the N. B. McLean in co-operation with Mr. H. H. McLean, Radio Engineer, and gave excellent results. During our stay at each station much repair and general overhaul was given to the masts and rigging by the crew of the N. B. McLean and J. Vigneau and assistant were loaned to Mr. McLean at each station for quite long periods of time to assist him in this work. Good co-operation was given and received from Mr. McLean during the whole season.

W. J. BALCOM,

Master.

R.M.S. *NASCOPIE*, CAPTAIN T. F. SMELLIE, MASTER, HUDSON BAY AND STRAIT, 1939

EXTRACTS FROM LOG

		· · · · · · · · · · · · · · · · · · ·				T		
Da	te	Wi	nd	Noon	Position	Course	Distance Run	Remarks
		Dir.	Force	Lat. N.	Long. W.			
July	19	NNW.	2	60° 28′	64° 35′	Various	170	Smooth sea, various speeds through heavy ice. 5.00 p.m. arrived Port Burwell.
"	20 21	SW. WNW.	4 1	61° 15′ 62° 29′	66° 52′ 69° 40′	N 47 W Various	80 108	Moderate sea, overcast and clear. Smooth sea, thick fog, several bergs and heavy close packed
"	22	SSE.	3	62° 29′	69° 40′			ice crossing Strait. Smooth sea, thick fog. Stopped for 24 hours in heavy ice. 5.25 p.m. arrived Lake Harbour, full heavy close packed ice.
"	23 24	SE. SE.	3 3	Lake 62° 02′	Harbour 71° 25′	. ,	76	4.00 p.m. left Lake harbour. Smooth sea, thick fog. Various speeds through heavy ice. 7.30 p.m. arrived Wakeham
"	25	w.	4	62° 25′	73° 06′		64	bay. Moderate sea, overcast and clear.
**	26	NE.	4	g	ugluk			7.35 p.m. arrived Sugluk. Overcast and clear. 8.00 p.m.
"	27	E.by S.	2	63° 40′	73° 00′		90	left Sugluk. Smooth sea, overcast and hazy. Various speeds through loose ice. 5.27 p.m. arrived cape Dorset.
"	28	w.	4	63° 32′	76° 01′		30	Slight sea, overcast and clear. Various speeds through loose ice. 8.02 p.m. arrived Wolsten- holme.
"	29 30	W by N N.	4 2	62° 58′ Southan	79° 48′ apton Island	N 71 W.	. 75 	Slight sea, fine and clear. 6.36 a.m. arrived Southampton island.
"	31	WNW.	2	63° 10′	82° 10′	Various	83	Fine and clear. 4.00 a.m. left Southampton island.
Aug.	1	w.	2	Сар	e Smith		192	Fine and clear. 7.16 a.m. arrived cape Smith.
"	2	ESE.	3	58° 18′	79° 33′		196	Slight sea, fine and clear. Various speeds through heavy ice. 4.03 p.m. arrived Port Harrison.
"	3 4	NE. E.	2 1	Port 58° 24'	Harrison 80° 16′	N 87 W.	58	Fine and clear. Overcast with fog. 6.00 a.m. left
"	5 6	N. SE.	4 2	58° 56′ 59° 26′	87° 57′ 92° 10′	N 81 W. Various	240 142	Port Harrison. Moderate sea, thick fog. Smooth sea, thick fog. Various speeds through heavy ioe.
66 44	7 8 9	SE. E. N.	3 4 4	Ch 59° 29′ 61° 28′	urchill 93° 26′ 91° 05′	N 33 E. N 30 E.	48 140	9.52 p.m. arrived Churchill. Fine and cloudy. Moderate sea, fine and cloudy. Occasional fog, some heavy ice,
"	10	WNW.	2		rfield Inlet	Various	134	slight sea. Fine and clear. 6.27 a.m.
"	11	SE.	2		87° 56′	S 66 E.	82	arrived Chesterfield. Cloudy and clear. Moderate swell, fine and clear.
"	12 13	N.	1 3	62° 32′	79° 11′	Various		4.00 a.m. left Chesterfield. Moderate sea, fine and clear.
"					75° 05′		20	4.45 p.m. arrived Wolstenholme. Slight swell, fine and clear. 6.00
••	14	NNW.	2	62° 48′			60	a.m. left Wolstenholme.
"	15	w.	3	Lake	Harbour		161	Fine and clear. 6.21 a.m. arrived Lake harbour. Heavy loose ice in Strait.
"	16	s.	2	60° 37′	65° 29′		194	Slight swell, fine and clear. 2.40 p.m. arrived Port Burwell.
"	17	wsw.	3	62° 24 ′	61° 58′		163	Moderate sea, fine and clear. A few bergs and growlers.
91)6 3 1–	} -3		,		ı	í	I

SS. WENTWORTH, CAPTAIN J. GRAVES, MASTER EXTRACTS FROM LOG, RESOLUTION ISLAND TO CHURCHILL, 1939

Resolution Island to Churchill 920 miles. Steaming time on passage 3 days 8 hours 18 mins. Average speed 11.46 miles per hour.

SS. WENTWORTH, CAPTAIN J. GRAVES, MASTER

EXTRACTS FROM LOG, CHURCHILL TO RESOLUTION ISLAND. 1939

Churchill to Resolution Island 920 miles. Steaming time on passage 3 days 14 hours 47 mins. Average speed 10.6 miles per hr.

SS. WENTWORTH

MASTER'S REPORT

SUMMARY

Ice Conditions.—Numerous bergs and growlers were met both inwards and outwards between Charles island and 90 miles E.S.E. of Resolution island. The bergs were larger and much more numerous than in previous years. There was considerable field ice to northward of Wales island on inward passage but, following advice of Captain Balcom of N. B. McLean and keeping to south side of Strait, this was avoided. About 80 miles northeast of Churchill on August 11 field ice was encountered but after skirting northern edge and making gradually to southwest for about 5 hours this field was cleared and course resumed for the port. Fine clear weather was experienced both inwards and outwards and steamer made excellent passages.

Compass.—The Browns gyro compass worked perfectly throughout the voyage. This gyro has given excellent results on Wentworth in all latitudes for past four years. The magnetic compasses acted similarly to previous years, being quite useless for safe and speedy navigation. No doubt all concerned have now realized that a gyro compass is very essential for navigating in these waters.

Lights.—On inward passage the fixed light on cape Hopes Advance was sighted at a distance of 27 miles in clear weather.

When leaving Churchill on the night of August 17 I reported to Mr. Twolon, Port Manager, on the visibility of the new light which has been established on top of the Churchill elevator. The light was visible only seven miles under perfect conditions. It was very faint after a distance of five miles from the port. The town lights were in sight for a considerable time later. I would suggest that the power be increased similar to the Digges Island light.

C.G.S. N. B. McLean.—I cannot speak too highly again of the very valuable assistance given by Captain Balcom of the N. B. McLean. Prior to our arrival off Resolution island he had investigated conditions to westward and was in continuous radio communication with the steamer giving position of ice sighted and advising best route to take.

Radio Bearings.—All radio bearings have been very reliable and operators on all stations have been most obliging and attentive at all times. Bearings from Churchill on Augut 11 were perfect, vessel proceeding to anchorage off Churchill on D.F. bearings and soundings in dense fog.

J. GRAVES,

Master.

SS. TROUTPOOL, CAPTAIN T. H. MUITT, MASTER

EXTRACTS FROM LOG, RESOLUTION ISLAND TO CHURCHILL, 1939

í	Ë		Posi	Position	Wind		Baro	Temp. 'F.	эF.	State of Weather and General Bemarks
Date	Time	course	Lat. N.	Long. W.	Dir.	Force	meter	Air	Sea	2000 1000 1000 1000 1000 1000 1000 1000
1939 Aug. 9	12 p.m.	308			Wly.	ಣ	29 81	40		2 10 a.m. Resolution island abeam, distance 3 miles, a/c 274.
0	4 a.m.	274			X X X X	ლ ძ	29 81 20 52	 6: F	99 40 7	Numerous large bergs and growlers approaching and leaving Acadia point infil 25 miles before reaching cape Hopes Advance.
	Noon	274	61° 19′	,08, 39	W ly.	- m ·	22:3 36:23:3	- -		Moderate breeze, smooth sea, fine clear weather.
	4 p.m. 8 p.m.	304		. :		11 ≪11 €	202			rassing intokhi neavy ban ne ontokhous one was ni 8.24 a.m. slowed and stopped with speeds various during watch
	Mid- night	318	:		· .	n (07.67		Į :	on account of third log and ree. Transmitty at thirds 1 miles
,, 10	4 a.m. 8 a.m.	318 295			× × ×	ကက	29 67 29 70	2 2		Vessel stopped from initing it until 3.30 a.m. When clear of ice. Course reset. 3.35 a.m. Wales island abeain, distance 8 miles.
	Noon 4 p.m.	275	62° 31′	74° 12′	××××××××××××××××××××××××××××××××××××××	ကက	8 8 8 8 8 8	 \$4.\$7		Course 318, then steering various courses clearing pan ice. 7.50 a.m. Wegges island abeam, distance 5 miles, a/c 295.
	8 p.m. Mid-	275	:	: :	××.	ကက	28.28 29.80	26 25 26 25	æ 4	
	night									11.30 p.m. a/c 254. Gentle breeze, smooth sca, fine clear weather.
" 11	4 a.m.	254		:	N.W.	თ →	88		45	13.35 a.m. Mansel island light abeam. Moderate wind and swell, overcast clear weather.
	Noon	242	61° 57′	82° 20′	WSW.	141	26 26 26 26 26 26 26 26 26 26 26 26 26 2	98	ß.	Moderate wind, smooth sea, patchy fog, no ice.
	4 p.m.	242	:			es es	25.5	3 23	2.5	Light beam wind, smooth sea, overcast and clear. Similar weather and sea.
	Mid-	242	· : :		 	. 61	29.72	67	8	Gentle following breeze, smooth sea, drizzling rain, no ice.
12.	night 4 a.m.	242	:		ж Ж	*	29.67	47	53	Moderate following wind, moderate sea, overcast and clear,
	8 a.m. Noon	242	60° 20′		Var. NE.	883	29 64 29 63	53	23 23	Veset following and view and clear, Gentle following breeze, moderate swell, overcast and clear, Gentle following breeze, moderate swell, overcast and clear,
	4 p.m. 8 p.m.	259 259 188			Nly. Nly. Var. Airs	60 CN	29.63 29.65 86.65	25.55	52 53 53	No ice. Light beam wind, moderate sea, overcast and clear. No ice. 10.00 p.m. a/c 188. Variable breeze, smooth sea, fine clear weather. No ice.
. 13		188 In port		: :	Var. Var.		29.66	24	₹ 94	2.37 a.m. dense fog. 2.52 a.m. slow ahead. Got radio bearing from Churchill. Light wind, smooth sea, dense fog.
										5.00 a.m. fog cleared, full away. 5.55 a.m. reduced speed off Eskimo point. 6.20 a.m. pilot boarded 7.00 a.m. mada fast in berth alonswide elevator at Churchill.

Resolution Island to Churchill 956 miles. Time on passage 4 days 4 hours 55 mins. Average speed 9.45 knots.

CHURCHILL MERCANTILE MARINE VESSELS BERTHED

SS. Wentworth	Arrive	d Augus	t 12	Departe	ed Augus	st 17
SS. Troutpool		"		"	"	16
SS. Ashworth	"	"	30	"	Sept.	1
SS. Ainderby	"	Sept.	- 1	"	"	7
MV. Charles L-D	"	u	6	"	"	7
SS. Wentworth	••	"	19	"	"	21

IMPORTS AND EXPORTS

Imp	ported			Exported
General Cargo		984 tons	Wheat	. 1,777,000 bushels
Coal	•	. 300 "		

TRAFFIC

Shipping	1939	1938
Arrivals:— Number of vessels Net registered tonnage	20 20,813	25 13,480
Departures:— Number of vessels Net registered tonnage	20 20,813	26 14, 194
Total Arrivals and Departures:— Number of vessels Net registered tonnage	40 41,626	51 27,674
Water Borne Cargo Tonnage (Tons = 2,000 lbs. weight or measure)	1	
InwardOutward	1.620 53,743	52* 28,780
Total	55, 363	28,832

^{*} Revised figures.





 $\begin{array}{ll} \hbox{Top:} & \hbox{MV $\it Charles L-$\it D$ approaching} \\ & \hbox{dock, Churchill.} \end{array}$

Centre: Beacon light, on Churchill elevator.

Bottom:—SS. Ashworth turning at dock, Churchill.



Hydrographic Information

The Hydrographic and Map Service, Department of Mines and Resources, publish a series of navigation charts and also a volume of Sailing Directions covering the Hudson Bay Route from the Atlantic entrance of Hudson strait to Churchill. These are kept up to date and added to from time to time as new information becomes available.

The "Tide Tables for the Atlantic Coast of Canada," published by the Tidal and Current Survey Division of the same Service, contain predictions for the port of Churchill and for Moosonee in James bay. Tables in leaflet form are available for port Nelson. Tidal differences for twelve localities in Hudson strait and for six localities in James bay afford the times of high and low waters in these areas. The time of the turn of the tidal streams in the southern offing of Resolution and Nottingham islands is also given. The automatic tide gauge is kept in operation each season at Churchill for the extension of the tidal records by which the predictions are improved.

HYDROGRAPHIC PUBLICATIONS—HUDSON BAY AND STRAIT

Charts-401 Churchill harbour. 402 Nelson roads. 403 Approaches to Nelson river. 404 Anchorages in Hudson strait. Sugluk inlet. Port Burwell Button islands. 405 Hudson bay and strait. 406 Cape Tatnam to Port Nelson. 407 Anchorages in Hudson strait. Charles inlet. Savage harbour. Acadia cove.
408 Cape Churchill to Churchill harbour. 500 Cape Churchill to Egg river. 501 Wakeham and Fisher bays and approaches. Wakeham bay. Fisher bay. 502 C. Prince of Wales to C. Weggs. Douglas harbour.

P1409 Churchill harbour to Hubbart point. P1502 James bay.

P1503 Pritzler harbour to cape Weymouth.

Balcom and Barrier

inlets. Shaftesbury inlet.

P1504 Mouth of Moose river. P1505 Rupert bay.

P1505 Mouth of Rupert river.

P1507 Lower Savage islands to Pritzler harbour.

Pritzler harbour.

P1508 Erik cove to Nuvuk harbour including

Digges islands. Erik cove. Port de Laperriere. Nuvuk harbour. Digges harbour.

Sailing Directions---

Sailing Directions for the Hudson Bay Route.

Tide Tables-

Tide Tables for the Atlantic Coast of Canada.

Note.—Copies of the above publications are available at the office of the High Commissioner for Canada, Canada House, London, England, for reference only. Charts and Sailing Directions are issued at 50 cents and Tide Tables at 25 cents per copy and may be obtained from the Hydrographic Service, Department of Mines and Resources, Ottawa, or from the National Harbours Board Office, Churchill, Manitoba. All orders must be accompanied by postal or express money order, for the full amount, payable to the Receiver General for Canada.

C.G.S. N. B. McLEAN METEOROLOGICAL REPORT, 1939

	Remarks	P.M.	Gentle breeze.	Cloudy and clear. Fine and clear.	; ;	(Touchy and clear.	rine and clear.		Forgy.		Cloudy and clear.	rine and clear.	Cloudy and clear.	rog wien rain.		Fine and clear. Overcast with rain	Cloudy with rain.	Fine and clear.	Cloudy and clear.	Fine "	Cloudy and clear	" "	Fine and clear.	Cloudy and clear.	Overcast and clear	rog and ram.	breeze, Light breeze, fog.	" clear.
		A.M.	Gentle breeze	Cloudy and clear. Occasional fog.	o pu	For "	Fine and clear	;	Cloudy and clear	t and clear clear.	Foggy	Overcast and rain Fine and clear	Orongost with	rain.	Fog with rain	rine and clear	Overcast with fog	Fog rain	(loudy and clear.	Fine and clear	Fog.	Overcast and clear	Fine and clear	clear.	Fine and clear.		ş	Moderate breeze,
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	Date		1939 July 31	Aug. 1	: :		91~		n 01	3 3	3 2		6.6	1	- 82		202		2 23				" 29	"	e e	Sont		% %

" fog.	derate gale,	gear. Moderate, breeze,	ine and clear. Gentle breeze, fine	and clear. Fresh breeze, rain	and fog Cloudy, fog banks.	Overcast, fog		squalls. Fine and clear.	Overgust, snow.	" fog.	Rain and snow.	Overcast, snow	squalls. Fine and clear.	Overcast, snow	squalls. Overcast, fog	banks. Fine and clear.	Overcast, snow	squalls. Overcast, snow	squalls. Overcast, snow	squalls. Overcast, snow	squalls. Cloudy and clear.	squalls.		Overcast, clear.	Cloudy and clear. Overcast, snow squalls.
Light breeze,	ze, fog M		1 clear	and clear. B	eze.	fog. Overcast and fog Ov	Snow	flurrier. Cloudy and clear Fin		Overcast, snow squalls.	rain.	Bnow	wons	Squalls. Overcast, rain Ov	fog Ov	t, fog	Snow	squalls. Overcast, snow Ov	Storms. Storms.	Bnow	lear.		: 3	_	Cloudy and clear. Cloody Sucrement S
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29.54	29.21	29.65	30 06	29 · 62	29.71	29 84	29.74	30.05	29.72	#) · 67	29.57	29.72	30.01	29 - 48	29.59	29.80	29.69	29.47	29.69	29.40	29.70	56 06	29.40	29.54	29.32
29.56	29.28	29.45	30.02	29.75	29.63	29 84	29.77	29 92	29.95		29 82	29.54	30.05	29.68	29.49	29.78	29.68	29.45	29.48	29.23	29.66	_	_	<u> </u>	29.63
. Wakeham Bay.		3		62-42N 76-03W.	Eric Cove	Digges Passage	Nottingham	Island.	Ligges I assume.		;		62.30N 76.10W	Sugluk Inlet	, , , ,	;	;		3		3 3	3	62.37N 75.50W	Nottingham	61.20N 65.11W
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20 RESOLUTION ISLAND METEOROLOGICAL REPORT, 1939

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain c	r Snow
									8 a.m.	8 p.m.
1939 July										
1	29 · 63	49	31	Ε.	18	Ε.	32	7		
2	29 · 47	39	34	E.	19	S.	16	18	⋅28	
3	29 · 67	40	33	S.	8	E.	22			-01
4	29·44 29·57	40 38	34 31	E. W.	10 10	W.	2 12	2	·26 ·30	.76
6	29.58	45	32	w.	18	E.	8		.03	
7	29.72	42	30	W.	10	W.	2	13		
8	29 · 49	43	32	E.	18	SE.	4	5	·12	,
9	29 · 47	37	32	W.	6	sw.	8	14		
o	29.50	42	34	S	5	E.	17	1	.24	
1 2	$29 \cdot 27 \mid 29 \cdot 69 \mid$	42 38	34 32	NE. S.	14 10	SW.	10 10	12	·10	
3	29.82	48	34	Ε.	6	Ε.	12	1		· · · · · · · · · · · · · · · · · · ·
4	29.77	42	33	NE.	17	NE.	22	13	! !	<i></i> .
5	29.91	46	36	NE.	16	E.	16		·	
6	$29.89 \ 29.82$	44 49	38 40	E. NE.	22 12	NE. W.	19 4			
8	29.89	52	41	W.	18	w.	8			
9	30 · 13	43	34	W.	10	W.	14			
0	29·92 29·56	44 43	34 36	W. SW.	2	S. W.	14 3			
2	29.49	54	36	w"	14 5	sw.	2	12 6	.24	
3	29 · 54	57	37	8.	10	W.	4	<u>.</u> .	ļ. <i>.</i>	
4	29.55	46	36	E.	24	E. 1	28	14		
5 6	$29.81 \\ 29.72$	40 45	34 34	SW. SW.	25 2	W. E.	14 16	8	⋅20	
7	29.36	46	34	E.	10	s.	22	5	•32	
8	$29 \cdot 52$	38	35	z.z.	24	S.	18	l	Trace	'
9	$29.56 \\ 29.59$	38 39	34 34	w.	10 10	S. W.	10	10	∙06	
1	29.54	43	32	<i>"</i> .	8	w.	5 6	13	.06	
August								! !		
1	$29.67 \\ 29.58$	42 48	33 39	NE. NW.	14 6	E. SW.	12	1		
3	29.61	48	40	NW.	5	w.	$\frac{2}{5}$			· · · ·
4	29 · 63	45	36		ıĭ	Ĕ.	18	:		
5 !	29.70	45	39	E.	18	E.	26			
6	29·89 29·98	49 50 +	41 40	E. W.	18 6	E. E.	10 6			
8	29.95	50	36	w.	10	w.	12			
9	29.75	53	34	SW.	6	E	15			
0 1	$29.59 \\ 29.81$	53 49	41 41	ENE. Calm	20	NE.	18 8		• • :	
2	29.68	41	34	w.	12	W. N.	18	l .:	!	•••
3 <i></i>	29.40	46	34	W.	10	W.	18	4		
4	29.46	46	31	W	18	W.	10	6		
5	29·80 29·85	41 45	33	WNW	18	W. W.	$^{12}_{6}$	• • • • • • •		
6	29.68	48	35 37	w. w.	12 10	wsw.	ĭ		}	
8	29.62	52	38	NE.	12	E.	6		∙07	
9	30.00	46	35	NNE.	1	SW.	6	····;		
0	$29.71 \ 29.70$	46 39	34 32	E. W.	11 30	W. W.	16 14	1 9		5
2	29.92	39	32	w.	10	sw.	2	3		
3	29 · 93	42	34	E. [18	E. [12	3 [
4	$29.98 \\ 29.72$	42	34	SW.	4	W.	6	4		
5	29.72	43 40	36 34	SE. W.	6 21	E. W.	12 18	3 8	•28	
7	29.70	37	34	w:	24	W.	13	7		
8	29.82	42	33	Calm		w.	12			
9 0	29·73 29·92	42	33	W.	6	wsw.	7		· · · · · · · · · · · · · · · · · · ·	
	ZH·HZ	36	33	W.	12	w. wsw.	12			

RESOLUTION ISLAND METEOROLOGICAL REPORT, 1939

Clear to partly cloudy, showers Clear to cloudy, fog early A.M. 20 - 35 Scattered ice to west, open water to east, see bergs. Scattered ice to west, open water to east, see all growlers. Scattered ice to west, open water to east, see all growlers. Scattered ice, one small berg. Three bergs, few scattered pieces of ice. Scattered pieces of ice, to open water to east, see all growlers. Scattered pieces of ice, three bergs Scattered pieces ice,				
1930 Clear during A.M. Foggy during P.M. 1 - 20 P.M. 2 Fog. clearing during P.M. 1 - 20 Fog. clearing during P.M. 2 5 Clear. 2 5 Clear. 3 Clear to cloudy with a 3 Clear to cloudy, fog early A.M. 2 5 Clear to cloudy, fog early A.M. 2 2 Clear to cloudy, fog early A.M. 2 2 Clear to cloudy fog early Clear to cloudy fog early A.M. 2 2 Clear to cloudy fog early A.M. 2 2 Clear to cloudy fog early A.M. 2 2 Clear to cloudy fog early Clear to clear fog				
1930 Clear during A.M. Foggy during P.M. 1 - 20 P.M. 2 Fog. clearing during P.M. 1 - 20 Fog. clearing during P.M. 2 5 Clear. 2 5 Clear. 3 Clear to cloudy with a 3 Clear to cloudy, fog early A.M. 2 5 Clear to cloudy, fog early A.M. 2 2 Clear to cloudy, fog early A.M. 2 2 Clear to cloudy fog early Clear to cloudy fog early A.M. 2 2 Clear to cloudy fog early A.M. 2 2 Clear to cloudy fog early A.M. 2 2 Clear to cloudy fog early Clear to clear fog				
1939 Clear during A.M. Foggy during P.M. 1 - 20 P.M. 2 Fog. clearing during P.M. 1 - 20 P.M. 3 Overcast with rain. 5 - 35 Clear. 6 Overcast with rain. 5 - 35 Clear. 6 Overcast with rain. 5 - 35 Clear. 7 P.M. 7 Overcast with rain. 5 - 35 Clear. 7 P.M. 7 Overcast with rain. 5 - 35 Clear. 7 P.M. 7 Overcast with rain. 7 Overcast vito partly cloudy. 7 Overcast with rain. 7 Overcast vito partly cloudy. 7	Date	General Weather	Visibility	Ice Conditions
Clear to partly cloudy to elear. 2 - 3				
Clear to partly cloudy to elear. 2 - 3				
Clear to partly cloudy to elear. 2 - 3			75	
Clear during A.M. Foggy during P.M. 1 - 20 Scattered ice, mostly open water. 2 - 30 Scattered ice all directions with several bergs growlers. 3 - 31 Scattered ice all directions everal bergs and growlers. 4 - 10 Scattered ice all directions everal bergs and growlers. 5 - 33 Scattered ice all directions everal bergs and growlers. 5 - 33 Scattered ice all directions, several bergs and growlers. 5 - 33 Scattered ice all directions, several bergs and growlers. 5 - 35 Scattered ice to west with open water to east, several bergs and growlers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water to east, several providers. 5 - 35 Scattered ice to west, open water, open wa			Miles	
P.M. Seg. clearing during P.M. Overcast with rain. Clear to partly cloudy with showers. Clear to partly cloudy, showers Clear to partly cloudy, showers Clear to partly cloudy, showers Clear to partly cloudy to clear. Clear to cloudy, for early A.M. Clear to partly cloudy to clear. Clear to cloudy for early A.M. Clear to partly cloudy to relear. Clear to cloudy for early A.M. Clear to partly cloudy to overcast to clear. Clear to cloudy for early A.M. Clear to partly cloudy to overcast Clear. Clear to clear. Clea		Class during A.M. Fogger during	1 90	Saattanad isa maatly open water
Fog. clearing during P.M. 5 - 20 Scattered ice all directions with several bergs are growlers. Clear Clear	1		1 - 20	pocattered ice, mostly open water
Rain all day 5 - 35	2		1 - 20	Scattered ice all directions with several bergs and
tan all day Clear to partly cloudy with Partly cloudy to clear and for any Clear to partly cloudy, showers Clear to partly cloudy, showers Clear to cloudy, fog early A.M. Clear to cloudy Clear to cloudy Partly cloudy to overcast Clear to clear. Clear to cloudy Partly cloudy to overcast Clear. Clear. Partly cloudy to overcast Clear. Cl	-	a og, oroning awarag a track	_	growlers
tan all day Clear to partly cloudy with Partly cloudy to clear and for any Clear to partly cloudy, showers Clear to partly cloudy, showers Clear to cloudy, fog early A.M. Clear to cloudy Clear to cloudy Partly cloudy to overcast Clear to clear. Clear to cloudy Partly cloudy to overcast Clear. Clear. Partly cloudy to overcast Clear. Cl				Loose open ice all directions
6 Overcast to partly cloudy with showers. 7 Fog during A.M., clear during P.M. 8 Rain and fog			$\frac{1}{2} - 10$	Scattered ice all directions, several pergs and growlers
showers. Rain and fog		Clear		
7 Fog during A.M., clear during P.M. 8 Rain and log. 35 - 0 9 Clear to partly cloudy, showers 5	О		10 - 20	Open ice, live bergs and several growlers
P.M. Rain and log. Clear to partly cloudy, showers Clear to partly cloudy, showers Clear to cloudy to clear. Clear to cloudy to clear. Clear to cloudy to overcast. Clear. Clear to cloudy to overcast. Clear. Clear to cloudy to overcast. Clear. C	7	Fog during A M clear during	0 - 35	Scattered ice to west with open water to east, several
8 Rain and fog. 35 - 0 Scattered pieces ice all directions, six bergs, nume growlers 1 Clear to partly cloudy to clear 2 - 35 Clear to cloudy, fog early A.M. 0 - 30 Clear to cloudy 35 - 4 Clear Cle	•	P.M.	0 00	
Clear to partly cloudy, showers 10 Partly cloudy to clear. 2 - 35 Clear to cloudy, Go early A.M. 0 - 30 Clear to cloudy, Go early A.M. 0 - 30 Partly cloudy to overcast. 2 - 25 Partly cloudy to overcast. 1 - 20 Partly cloudy to overcast. 2 - 20 Partly cloudy to clear. 3 - 20 Partly cloudy to overcast.	8	Rain and fog	35 - 0	Scattered pieces ice all directions, six bergs, numerous
Degree Partly cloudy to clear 2 - 35 Scattered ice to westward, four bergs Scattered ice to westward, four bergs Scattered ice to west, several bergs Scattered ice, several bergs				
10 Partly cloudy to clear. 2 - 35 Clear to cloudy, fog early A.M. 0 - 36 Clear to cloudy to overcast 1 - 20 Partly cloudy to overcast 1 - 20 Clear. 35 Clear. 36 Clear. 36 Clear. 36 Clear. 37 Clear. 38 Clear. 38 Clear. 39 Clear. 30 Clear.	9	Clear to partly cloudy, showers	0 - 35	Very scattered ice to west, open water to east, several
11 Clear to cloudy, fog early A.M. 20	10	D (1 1	0 25	
Clear to cloudy 35 - 1		Claus to cloudy to clear A M		
Clear to cloudy 35 - 4 Partly cloudy to overcast 1 - 20 Clear to Partly cloudy to overcast 2 - 20 Partly cloudy 3 - 3 Clear 3 Partly cloudy 3 Clear 3 Partly cloudy 3 Clear 4 Clear 5 Clear 6 Clear 6 Clear 7 Clear			20 - 35	
Clear to cloudy 35 - 4 1 - 20 Few scattered pieces of ice, three bergs and growlers. 20 Scattered ice to westward, three bergs and growlers. 20 Scattered ice, one small berg. 20 Scattered ice, one statered ice, one small berg. 20 Scattered ice, one small berg. 20 Scattered ice, one statered ice, one state	14	Vicitado do cicar	20 00	
Partly cloudy to overcast 1 - 20 Few scattered pieces of ice, three bergs and growlers. Scattered ice to westward, three bergs Scattered ice to west, open water, six bergs	13	Clear to cloudy	35 − 1	Three bergs eastward
16				Few scattered pieces of ice, three bergs and two
Partly cloudy to overcast 20				
Three bergs, few scattered pieces of ice.				Scattered ice to westward, three bergs
18	16	Partly cloudy to overcast		Charactered ice, one small berg
Clear 35				
Partly cloudy		Clear		
Ram and fog				
Partly clear 20 - 0 Scattered re, lour bergs. 2 - 0 5 5 5 5 6 0 5 5 5 0 5 5 0 5 5	$\tilde{21}$	Rain and fog		No ice in sight
Partly clear 20 - 0 Scattered re, lour bergs 2 - 5 Few scattered lice Coverast to partly cloudy 0 - 6 Two bergs, scattered lice Coverast tith rain 35 - 2 Scattered lice Coverast tith rain 3 - 2 Scattered lice Coverast Cov	22	Light fog during A.M., then clear		Four bergs
24	23	Partly clear		Scattered ice, four bergs
26	24	Pourteen hours log	1 - 5 0 - 6	Few scattered pieces ice
27 Overcast 1 - 12 No ice in sight No ic			25 - 2	Southand ica three horgs
2			$\frac{1}{1} - \frac{1}{12}$	No we in sight
Ten hours for Overcast with showers 2 - 10		Overcust with showers	2 - 5	Few pieces of ice
31	29	Ten hours fog	$6 - \frac{1}{4}$	Few pieces ice to southwest
Partly cloudy			2 - 10	Three bergs, some small ice
Partly cloudy		Overcast	8 - 15	Four bergs, sever il pieces ice
Some fog during night Some seathered fee, two bergs	Aug.	Domaler alough	0 20	Two bares come unattored in
Some fog during night Some seathered fee, two bergs	9	Clear to partly cloudy		
Some fog during night Some seathered fee, two bergs	3	Clear		
Some fog during night Some seathered fee, two bergs	4	Clear to partly cloudy	15 - 30	
Two bergs Three bergs Three bergs	.)	Overeast		Some scattered ice, two bergs.
Partly cloudy Solution Partly cloudy Partly cloudy Partly cloudy Solution Partly cloudy	6	Clear		
Clear to cloudy	7	Partly cloudy		
Partly cloudy	8	Clare to aloudy		
Partly cloudy	10	S rear to cionay Partly cloudy	90 19	No ice in sight.
Partly cloudy to clear 20				
14				
14	<u> </u>	Cloudy to clear	0	Two bergs.
10	14	Partly cloudy to clear	3 - 20	Two bergs.
16 Cloudy 30 Five bergs 30 Five bergs 31 Cloudy 32 Cloudy 32 Cloudy 32 Cloudy 32 Cloudy 32 Cloudy 33 Cloudy 34 Cloudy 35 Cloudy 36 Cloudy 37 Cloudy 37 Cloudy 38 Cloudy 30 C	15	Partly cloudy to clear		
18 Overcast to partly cloudy				
19 Cloudy 12 20 Four bergs				
Cloudy to overcast with rain 1 - 7 Three bergs				
21 Overcast to clear 1 - 10 Four bergs.			1 - 7	Three bergs.
22 Some fog during night 30 Four bergs.			1 - 10	Four bergs.
Clear 30 Eight bergs Seven bergs S	22	Some fog during night	30	Four bergs.
25 Cloudy to overcast, rain 30 - \frac{1}{2} Seven bergs. 26 Partly cloudy 2 - 15 No ice in sight. 27 Overcast 0 - 4 Five bergs. 28 Partly cloudy 15 - 30 Several bergs and growlers. 29 Overcast to partly cloudy 15 Several bergs and growlers. 30 Partly cloudy to overcast 10 - 20 Three bergs. 31 Overcast with rain \frac{1}{2} - 12 Few bergs and growlers.		Partly cloudy to overcast		
26 Partly cloudy. \$\frac{1}{2}\$ - 15 No ice in sight. 27 Overcast. 0 - 4 Five bergs. 28 Partly cloudy. 15 - 30 Several bergs and growlers. 29 Overcast to partly cloudy. 15 Several bergs and growlers. 30 Partly cloudy to overcast. 10 - 20 Three bergs. 31 Overcast with rain. \$\frac{1}{2}\$ - 12 Few bergs and growlers.				
27 Overcast. 0 - 4 Five bergs. 28 Partly cloudy. 15 - 30 Several bergs and growlers. 29 Overcast to partly cloudy. 15 Several bergs and growlers. 30 Partly cloudy to overcast. 10 - 20 Three bergs. 31 Overcast with rain. 1 - 12 Few bergs and growlers.				No ice in sight
28 Partly cloudy 15 - 30 Several bergs and growlers. 29 Overcast to partly cloudy 15 - 30 Several bergs and growlers. 30 Partly cloudy to overcast 10 - 20 Three bergs 31 Overcast with rain. 1 - 12 Few bergs and growlers.			7 - 10 0 - 4	Five heres
29 Overcast to partly cloudy			15 - 30	Several bergs and growlers.
30 Partly cloudy to overcast 10 - 20 Three bergs. 31 Overcast with rain		Overcast to partly cloudy		
31 Overcast with rain			10 - 20	Three bergs.
99631—44			$\frac{1}{3}$ - 12	Few bergs and growlers.
-	9963	i1—4 <u>4</u>		

22 RESOLUTION ISLAND METEOROLOGICAL REPORT, 1939—Cont.

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	oitation
Date	Baro-	Max.	Min.	Dir.	Vel.	D:-	Vel.	of	Rain	or Snow
	meter	Mar.	Min.	Dir.	vei.	Dir.	Vei.	Fog	8 a.m.	8 p.m.
1939 September										
1	29.80	38	31	w.	28	w.	16	4	.27	ļ
2	$29 \cdot 73$	40	30	E.	9					ľ ·
3	29.61	49	36	<u> </u>		<u>E</u> .	22			
4	29·19 29·24	46 37	39 34	E. W.	22 22	E. W.	16	17	.97	
5	29.24	44	34 34	NW.	16	w.	16	6	.97	
7	29.86	41	40	NE.	6	s.	10	3		
8	29.69	42	30	SE.	6	Е.	10	6		
9	29.72	42	31	E.	2	NW.	6	10		
10 11	29·75 29·78	39 37	30 30	W. E.	6 10	W. E.	2 2	7		
12	30.00	39	34 34	NE.	6	NE.	9	,	.22	
13	29.84	38	33	N.	10	N.	22			1
14	29.57	37	33	NE.	22	N.	10		 	.01
15	29.77	36	32	W.	10	S.	4	3		
16	29·36 29·59	36 37	32 31	E. NW	10 16	NE. NW.	22 10	8	· 12	·02
	29.99	31	31	14 **	10	14 44.	10		.12	1
18	29.66	37	30	NW.	28	SW.	16			
19	29.36	35	33	S.	22	W.	22	12	.25	.04
20	29.62	33	30	W.	28	W.	10	24		
21 22	29·70 29·31	34 37	29 31	W. NE.	6 22	SE. SE.	6 6	16 7		
23	29.09	36	32	E.	6	w.	10	16		.08
24	29.57	34	29	SW.	22				· 15	
25	29.67	36	32			W.	6			
26	29.23	36	31	E.	28	SW.		. 7		-04
27	29·14 29·72	33 35	30 32	W. S.	6 10	E.	22 16	- 4	·09 ·05	.04
29	29.61	34	32	sw.	6	ŠĖ.	22		03	-03
30	29.35	33	31	w.	2	SW.	22	9		
October	20 00		01	'''	-	~				
1	29.58	34	32	sw.	10	S.	16			
2	29.61	35	31	NW.	10	w.	28		·10	•01
3	29.74	33	28	SW.	22	w.	34		∙91	.03
4	29.84	31	27	w.	22	N.	14			
5	30.00	30	26	W.	10	NW.	10			-01
<u>6</u>	30.01	30	27	NW.	16	NW.	16		Trace	
7	29.69	31	25	Calm		E.	28	c	0.4	
8 9	$29.09 \\ 29.49$	33 33	31 30	SE. SW.	16 16	SW. NW.	50 16	6	.04	·17
	1			5	10				•	01
[0	29.69	33	29	137		SW.	10			• • • •
1	29·48 29·56	32 32	$\frac{29}{25}$	W. NW.	6 6	W. SE.	16 16		•	
3	29.65	33	30	E."	28	E.	28			
4	29.40	35	30	N.	22	NE.	22	6	.05	.05
5	29 · 39	31	28	W.	28	NW.	22	3	· 10	
6	29 · 29	31	28	w.	22	NW.	16		-01	.01
7	29 33	30	27	W.	22	NW.	22		• •	
18	29 29	29	25	SW.	28	W.	16		.01	-06
9	29 - 27	28	23	NW.	16	w.	34			
80	29.54	28	25	W.	34	W.	22			∙01
1	29.37	29	26	SW.	16	SE.	16		.02	
22	29.27	33	29 25	S.	9	SW.	9	.	• • •	
23	29·35 29·81	33 34	25 23	N. NE.	50	NE.	28	. 6		-10
5	29.70	34	30	NE.	9	NW.	22	24	05	.06
86	29 · 41	34	23	W.	42	W.	42	.	.01	
7	29.57	27	20	NW.	6	NE.	6		-	
28 19	29·35 29·33	24	21	NE.	16	NE. NW.	16 42			• • • • •
	40.00	24	18	NE.	9	TA AL.	44			
80	29 - 64	27	12	W.	16	W.	22			

RESOLUTION ISLAND METEOROLOGICAL REPORT, 1939—Cont.

Data	Canaral Washham	Vieikili4-	Too Conditions
Date	General Weather	Visibility	Ice Conditions
1939		Miles	
Sept.	Clear to overcast	15 - 1	No ice in sight.
1 2	Partly cloudy to cloudy	20	Four bergs.
3	Mostly cloudy Foggy with rain	10 - 15	Four bergs.
4 5	Rain and fog. then clear to cloudy.	4 - 5	No ice in sight. Three bergs.
6	Partly cloudy to clear	1 10 - 20	Kour hergs
7 8	Clear to cloudy Clear to partly cloudy	30 - 1	Several bergs and growlers. Three bergs.
9	Partly cloudy Clear to partly cloudy	10 - 15	Four bergs.
10 11	Overcast, drizzle	18 _ 4	Several bergs and growlers. Two bergs and few growlers.
12	Overcast	8 - 15	Three bergs.
13	Overcast	10	Four bergs, several growlers and pieces of ice. Three bergs.
14 15	Cloudy to overcast, snowflurries. Partly cloudy to cloudy	15 - 1	Several bergs, growlers and small pieces of ice.
16	Overcast rain and snow	7 - 1	Few bergs and growlers.
17	Overcast to clear, snow flurries and rain at night.	8 – 20	Three bergs.
18	Mostly overcast	10 - 15	Four large bergs and several growlers.
19 20	Drizzle with fog all day Twenty four hours fog	1 - 2	No ice in sight. No ice in sight.
21	Fine during A.M., fog during P.M.	15 - 1 15 - 1 1 - 4	Seven bergs, several growlers. Two bergs.
22	Overcast with rain and fog	1 - 4	Two bergs. No ice in sight.
23 24	Overcast, rain and snow	4 - 20	Three bergs.
25	Partly cloudy to overcast	5 15	Three bergs. Three bergs.
26 27	Overcast with snow and rain Overcast with snow and rain	1 - 10	Three bergs. No ice in sight.
28	Partly cloudy to overcast	5 - 10	No ice in sight. Several bergs.
29	Partly cloudy to overcast, snow and rain.	8 – 18	Four bergs.
30	Overcast to partly cloudy	10 - 20	Four bergs.
Oct.			
1	Cloudy to overcast	8 - 15	Two bergs.
2 3	Overcast, snow during night Partly cloudy to overcast, snow		Three bergs. Two bergs.
	flurries.	_	
4 5	Cloudy to partly cloudy! Cloudy to overeast, light snow in		Two bergs. Two growlers.
	P.M.		
6 7	Overcast to clear Partly cloudy to overcast	30 - 15	Five growlers. Few growlers.
8	Overcast, rain and snow	0 - 30	No ice in sight.
9	Partly cloudy to clear, snow	3 - 30	Some small ice.
10	flurries. Overcast to partly cloudy	25	No ice in sight.
11	Partly cloudy to clear	30	Two growlers.
12 13	Partly cloudy to overcast Fine and clear	30 15	Two bergs. Two bergs.
14	Snow and rain	₹ - 10	No ice in sight.
15	Partly cloudy to overcast, snow during night.	1 - 15	No ice in sight.
16	Overcast, snow flurries	1 - 15	Three bergs.
17 18	Overcast, snow flurries	$\frac{1}{1} - 25$	Five bergs. Two bergs.
	partly cloudy.		
19 20	Partly cloudy to overcast Overcast with snow flurries	$ \begin{array}{r} 30 - 10 \\ 0 - 20 \end{array} $	Three bergs. One berg.
20 21	Overcast with snow nurries	$20 - \frac{1}{4}$	Three bergs.
22	Overcast to partly cloudy	$6 - \bar{2}0$	Two bergs.
23 24	Overcast, heavy drifting snow Drifting snow	$\frac{15-0}{1-2}$	Two bergs. One berg.
25	Drizzle during night, snow all day.	$\frac{1}{2}$ - 2	No ice in sight.
26 27	Overcast to partly cloudy Overcast to partly cloudy	25 20 - 30	Two bergs. Two bergs.
28	Partly cloudy to overcast	25	One berg.
29 30	Overcast to partly cloudy Partly cloudy to overcast	10 - 30 20	One berg. One growler.
	Overcast with snow flurries to		Two growlers.
	partly cloudy.		l

24
RESOLUTION ISLAND METEOROLOGICAL REPORT, 1939—Conc.

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 ρ.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog		8 p.m.
1939 November 1	29·82 29·33	24 26	14 15	NE.	9 16	NW.	16 16		.05	·01
3	29·53 29·47 29·62 29·85 29·53 29·22 29·46 29·71 29·69 29·93 30·03 29·94 29·74 29·74	25 26 30 31 32 31 34 34 29 35 28 26 25 27	19 19 23 29 29 29 30 31 25 28 25 23 20 20 22	N.W. NYE. SW. NEE. NNEE. E.E. E.E. NN. NE.	28 28 4 16 28 28 22 16 16 22 9	NW. SW. Calm NNE. E. NNE. E. NNE. E. NNE. E. NNE.	28 22 16 	7 12	-04 -13 -01	-10 -01 -01 -07
18	29·71 29·72 29·78 29·81 29·40 29·41 29·62	27 27 23 23 24 24 24 20	22 18 14 15 21 17	NE. N. W. W. SW. N.	22 22 9 34 9 16	NE. SW. NE. N.	28 16 6 16 28		·01 ·04 ·01	·02 ·10 ·07 ·01
25	29·50 29·29 29·46 29·25 29·06 29·98	27 28 25 18 23 14	11 21 15 16 13 10	W. N. NW. SW.	42 9 9 16 42	SW. N. NW. N. S SW.	16 34 9 6 28 34	• • • •	.08 .11	Trace ·10 · · · · · · · · · · · · · · · · · ·

CAPE HOPES ADVANCE METEOROLOGICAL REPORT, 1939

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog		Snow 8 p.m.
1939 August 6	30 03 30 13 30 15 29 92 29 60 30 00 29 65 29 40 29 73 29 98	45 49 52 52 47 47 59 58 46 52	38 38 40 43 38 37 37 39 36 35	E. NW. NW. NW. NW. WNW SW. NW. SW. SW.	9 22 22 30 24 25 16 12 35	N. NW. NW. NW. NW. NW. S. NW. W.	7 26 20 12 25 20 10 23 24 4	6		
16	29·57 29·57 29·84 29·94 29·93 29·91 30·04 30·08 29·55	66 64 61 54 57 59 48 46 63 72	47 48 37 36 38 38 36 35 40	SW. NW. WNW. S. WNW. NW. E. SSW. SSE.	12 16 27 16 21 20 12 10 20 26	S. SE. W. SE. NW. NW. SE. SS. SSW.	20 12 30 29 12 17 8 6 24 15	1		-0(

RESOLUTION ISLAND METEOROLOGICAL REPORT, 1939-Conc.

Date	General Weather	Visibility	Ice Conditions
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 22 23 24 25 5 27 5 29	Overcast, snow flurries. Partly cloudy to overcast with snow. Partly cloudy to clear. Overcast to clear. Overcast to clear. Overcast. Partly cloudy Overcast, drifting snow. Overcast to partly cloudy, showers Overcast to partly cloudy, showers Overcast to partly cloudy. Overcast to clear Overcast, light snow Overcast to partly cloudy. Clear to overcast. Overcast, snow. Partly cloudy to overcast with snow. Overcast, drifting snow Partly cloudy, snow Overcast, drifting snow Overcast, snow flurries. Overcast, light snow Overcast, light snow Overcast, light snow Overcast, snow flurries. Overcast with snow. Clear to overcast Overcast with snow Clear to overcast Overcast with snow Clear to overcast Overcast, snow flurries Overcast, snow flurries Overcast, snow flurries	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Two growlers. Few growlers. No ice in sight. No ice in sight. Two bergs. One berg. One berg. One berg. No ice in sight. One berg. No ice in sight. So ice in sight. Scattered et strings of ice. Scattered strings of ice. No ice in sight.

CAPE HOPES ADVANCE METEOROLOGICAL REPORT, 1939

Date	General Weather	Visibility	Ice Conditions
1939		Miles	
Aug.	ŀ	1.21.0	
	Clear	20	Seven bergs.
7	Partly cloudy	20	Seven bergs.
8	Fine and clear	20	Six bergs.
9	Cloudy	20	Five bergs.
	Cloudy to clear	10	No ice in sight.
11	Cloudy	30	Three large and several small bergs, scattered ice.
12	Clear	30	Scattered heavy broken ice east and west.
13	Fine and clear	30	Three bergs and some scattered broken ice.
14	Fog during A.M	10	Two bergs, scattered ice.
15	Clear	30	Five large bergs, numerous growlers and small pieces
16	Clear	30	all directions.
10	Clear	30	Nine bergs, numerous pieces and several strings loose scattered heavy ice passing eastward.
17	Overcast	30	Several bergs and pieces of ice.
18	Drizzle during A.M	1 - 30	No ice in sight.
19	Clear	30	No ice in sight.
	Clear.	30	Three bergs.
21	Fine and clear	30	Two bergs eastward, few scattered pieces ice.
22	Fine and clear		One berg.
23	Cloudy, distant fog	10	Three large bergs.
24	Fine and clear	30	Five bergs.
25	Overcast, heavy rain afternoon,	ł	Three bergs.
	clearing during P.M.		l

\$26\$ CAPE HOPES ADVANCE METEOROLOGICAL REPORT, 1939— ${\it Conc.}$

:	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain o	r Snow
									8 a.m.	8 p.m.
1939 August										
26	29.75	63	39	W.	20	NW.	18	1	1.40	Tr.
27 28	29·96 29·84	47 50	31 32	NW.	50 18	NW.	39			∙05
29	29.96	44	33	NW.	18	NW.	36			
30	30 · 10	39	32	WNW	24	S.	23	1		
31	29.46	48	34	SE.	24	WNW	70		-02	· 4 3
September										
1 2	29·76 29·76	44 59	33 32	NW. S.	32	S.	24		• • • • • • •	
3	29.46	60	32 42	s.	20 12	NE. SE.	31	4	• • • • • • • • • • • • • • • • • • •	· · · · · · · · ·
4	29.42	61	36	ŠĖ.	40	NW.	30	4		
	00.51	-,		27117				_		
5 6	29·51 29·91	51 45	34 32	NW.	50 32	NW.	52 18	3		• • • • • • • • • • • • • • • • • • •
7	29.97	49	32 32	s.	12	SE.	34			
8	29.77	62	29	$\tilde{\mathbf{s}}$.	17	NW.	13			
9	29.74	52	35	NW.	12	S.	5	3		
10	29.80	50	37	SW.	17	S.	15			,,
11	29·94 30·01	51 43	32 31	NW.	12	NW.	25	• • • • • • •	-11	.01
12	29.92	41	31	NW.	25 15	NW. SE.	26 25	· · · · · · · ·		-20
14	29.73	37	31	Ĕ.	36	N.	3		·10	.02
15	29.76	43	34	SW.	10	SE.	16		·ôĭ	
16	29.45	43	32	S.	14	NW.	20			
17	29.85	38	30	NW.	20	NW.	50		.02	∙01
18	29.59	40	30	SW.	12	s.	23		.05	
19	29.50	41	34	W.	18	NW.	20	4		
20	29.63	41	31	NW.	36	NW.	12			
21	29.60	42	30	S.	12	SE.	18	3		
22	29.47	42	29	SE.	31	SE.	2	17		
23	29.29	34	29	NW.	27	NW.	44	12		
24	29.33	36	29	SW.	24	<u>s</u> .	24			
25	29.79	38	31	SW.	17	E.	. 8	ا م		
26	29.24	38	30	Е.	40	E.	17	2	•••	·20
27	29.09	38	30	NW.	18	W.	37			·01
28	29.72	38	29	SE.	15	SE.	25			·01
29 30	29·74 29·27	38 34	26 29	SW.	15	NE.	12			.01
	20.21	04	20		· <i>•••</i>	•				

NOTTINGHAM ISLAND METEOROLOGICAL REPORT, 1939

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of	Rain o	r Snow
	meter	Mu.	Min.	171.	vei.	1711.	vei.	Fog	8 a.m.	8 p.m.
1939 July 12	29·43 29·18	43 40	28 33	E. E.	14 14	E. W.	22 20	10	24	· 12 · 14
3	29 · 46 29 · 64 29 · 60 29 · 64 29 · 55	49 42 54 41 38	32 32 36 32 33 33	s. s. w. s.	20 10 14 11 20	S. W. SE. S. SW.	16 12 8 18 12	12 10	· · · · · · · · · · · · · · · · · · ·	·13
9	29·45 29·48	36 37	32 31	s. nw.	12 10	W. W.	7 10	24 18		· 15
10	29·49 29·48	38 42	28 33	W. Calm	4	w. W.	5 10	18 18	-08	

CAPE HOPES ADVANCE METEOROLOGICAL REPORT, 1939-Conc.

Date	General Weather	Visibility	Ice Conditions
1939		Miles	
Aug. 26	Overcast with rain	1	Three bergs.
27	Overcast, light snow flurries	15 - 1	No ice in sight.
28	Partly cloudy and clear	30	No ice in sight.
29	Overcast	20	Three bergs.
30	Cloudy to clear	20 - 30	No ice in sight.
31	Heavy rain during A.M	ì	No ice in sight.
Sept.			
	Cloudy to clear	20	Four bergs.
	Partly cloudy to cloudy	20	Three bergs.
3	Heavy fog during afternoon, clear in the evening.	5	No ice in sight.
4	Distant fog all day	2	Ice unobserved.
5	Clear to partly cloudy	1 - 10	No ice in sight.
6	Fine and clear	30	No ice in sight.
7	Cloudy and clear	30	One small berg.
8	Cloudy and clear	30	No ice in sight.
9	Cloudy to clear	30	No ice in sight.
10 11	Cloudy	30	No ice in sight.
12	Cloudy, light showers	30	No ice in sight.
13	Rain and snow	20	Five bergs. Two bergs.
14	Cloudy, snow during A.M		No ice in sight.
15	Fine and clear	25	Two bergs.
16	Scattered showers, then clear		Three bergs.
î7	Cloudy to clear, scattered snow flurries.		Four bergs.
18	Overcast, occasional fog	12	No ice in sight.
19	Fog during P.M., showers at night.		No ice in sight.
20	Overcast to clear	12 - 20	Two bergs.
	Partly cloudy to overcast, clear during P.M.	30	One berg.
22	Dense fog all day	0 - 30	No ice in sight.
	Overcast with snow		No ice in sight.
24	Cloudy to clear	30	No ice in sight.
	Clear all day		One berg sighted.
26	Overcast, snow and fog during P.M.	0 - 10	One berg sighted.
27	Light intermittent snow		No ice in sight.
28	Cloudy to clear, snow late P.M.	30 - 0	No ice in sight.
	Partly cloudy, light snow	10 - 1	No ice in sight.
30	Fine and clear	30	No ice in sight.

NOTTINGHAM ISLAND METEOROLOGICAL REPORT, 1939

Date	General Weather	Visibility	Ice Conditions
2 3 4 5 6 7 8 9	Overcast, rain most of day Rain until 3 P.M., then partly cloudy. Overcast to clear Overcast Overcast Overcast Overcast with rain. Fog for twenty-four hours, drizzle and snow in P.M. Overcast with fog Mostly overcast	$ \begin{array}{r} \frac{1}{2} - 20 \\ 25 \\ 35 \\ 40 - 2 \\ \frac{1}{2} - 25 \\ \frac{1}{2} - 10 \\ 0 - 6 \end{array} $	Heavy ice to west with leads in shore. No ice in sight. Close packed ice all directions. Close packed ice to horizon. Heavy ice with lead inshore. Close packed ice to horizon. Packed ice, small lead inshore. Cove full loose open ice. Cove full loose open ice. Loose ice in cove, close packed ice outside. Loose heavy ice to horizon.

\$28\$ NOTTINGHAM ISLAND METEOROLOGICAL REPORT, 1939— ${\it Cont.}$

	Mean Air Temp.		Wind, 8 a.m. Win		Wind	find, 8 p.m.		Precipitat		
Date	Baro- meter	-	Min.	Dir.	Vel.	Dir.	Vel.	- Hours of Fog	Rain or Snow	
					ļ				8 a.m.	8 p.m.
1939 July					1					
12	29 · 64	39	33	NW.	8	W.	5	6		
13	29.80	49	34	W.	5	SE.	11			
14	29.99	56	36	E. E.	6	W.	5			
15 16	30·16 30·12	52 56	32 37	Calm	8	SE.	9			• • • • • • • • •
17	30.10	59	33	Calm		w.	6			
l8	30 · 17	52	36	E.	8	W.	7	ļ. ·		
19	30 12	50	37	SW.	12	S.	16	;		.02
20	29·68 29·51	49 44	36 12	S. W.	20	SW. E.	18	12 12	·02 ·01	
22	29 33	43	33	w.	5	w.	4	10	.06	-02
23	29 · 53	40	35	S.	14	S.	15	10		
24	29.49	52	35	E.	8	E.	6	5	· · .	
25 26	29.71 29.56	43 46	36 37	W. E.	8 12	SW.	16	12	·11 ·17	• • • • • • •
7	29 17	44	34	E.	4	w.	16	12	32	
8	29 · 51	38	33	NW.	16	W.	10	15	.14	04
29	29 · 67	46	34	NW.	6	W.	8	٠٠٠ نو		• • • • • •
30 31	$29.71 \\ 29.82$	54 51	34 34	W. W.	5 4	N. NW.	10	5		
		.	"-	'''	1	1,,,,	1		•	
August	30.02	54	34	N.	8	Е.	8			
2	29.84	53	39	E.	8 5	Ê.	10	í		
3	29.70	53	41	E.	16	E.	24			
4	29·66 29·81	53 54	40 40	E. E.	18 18	E.	25 14			
6	30.02	61	44	E.	10	Е. Е.	8			•• •••••
7	30 - 17	52	47	E.	6	W.	4		!	
8	30 15	60	41	N.	4	<i>II</i> .	7	·		
9	29 · 98 29 · 88	51 51	43 40	E. N.	9	NW.	12 10			
1	30.05	53	36	ŵ.	4	w."	70	10		
2	29.76	51	39	W_{\perp}	10	W.	10	2		
3	29.73	51	38	sw.	3 7	N. NW.	16			
4	29.84	52	34	N.			12	'		
5 6	29·90 29·83	52 44	37 39	W. SW.	6	XW	10	10 :		
7i	29.73	47	40	W	15	Ñ.	14	14	.02	Trace
8	29 99	50	33	N.	5 !	N.	j 8			
9 0	29 · 94 29 · 61	49 45	36 37	E. SW.	12 20	W.	12	6	10	·06
1	29.91	50	37	W	6 1	11.	8	3 !	·16 ·01	Trace
2	30.03	46	33	N.	4 '	W.	12	4	·õi	· · · · · · · · ·
3	29.89	50	40	S.	9 j	s.	9	:	!	
4	29.84	51	39	8.	8	S.	14	!	m	
5 6	$\frac{29 \cdot 65}{29 \cdot 74}$	47	$\frac{40}{36}$	S.	16 20	8. N.	20	9 1	Trace 01	∙04
7	30.08	46	33	NW.	15	Û.	10		-01	
8	29.86	41	36	8.	20	N.	18	3		
9	$\frac{30.06}{29.92}$	40 39	$\frac{31}{34}$	N. S.	$\begin{vmatrix} 9\\19 \end{vmatrix}$	NW. S.	12	;		;;
0	29.76	39	34	Ñ.	24	Ñ.	$\begin{bmatrix} & \frac{14}{16} \end{bmatrix}$		13	.14
Santanilian					·		l i	1		
September 1	29.83	38	32	s.	6	SW.	34			.08
2	29.63	44	31	N.	6	Calm	i _I	6	·10	.62
3	29 - 64	44	33	N	6	NE.	16		·10 1	
1	29.50	40	33	NE.	28	N.	34			•
5	29·79 30·08	40 40	30 30	N. W.	22 6 +	W. S.	10 22	2		
7	29.83	41	36	S.	16	s.	16	8	·12	· · · · ·
3	29.76	39	35	N.	10	NW.	2 !	24	·01	
}	$\frac{29.90}{20.76}$	40	33	NW.	6	E.	6	16	·01	.01
)	29.76	40	33	Е.	10	N.	6			.17
1	30.05	37	29	Calm	1	SE.	2	Į.	-17	

NOTTINGHAM ISLAND METEOROLOGICAL REPORT, 1939-Cont.

	1		
Date	General Weather	Visibility	Ice Conditions
1939		Miles	
July 12	Overcast	0 - 20	Heavy ice to horizon, lead inshore.
13	Overcast to clear	35	Loose packed ice to horizon.
14	Cloudy to clear	30	Close packed ice to horizon.
15 16	Clear to partly cloudy	35 35	Loose packed ice to horizon. Close packed ice all directions.
17	Clear to cloudy	35	Loose ice with open leads.
18	Overcast to clear	35	Loose ice south and west, several leads.
19	Overcast, light rain		Loose open ice to south, close packed ice northwest. Close packed ice in cove and to horizon.
20 21	Overcast to foggy	15 - }	No ice in sight.
22	Overcast, fog	3 - 25	Strings of ice midchannel.
23	Overcast with intermittent fog	0 - 15	Mostly open water, strings scattered ice.
24 25	Cloudy to foggy	20 - 1 15 - 0	Loose packed ice moving with tide. Scattered ice.
26	Overcast, fog Overcast with rain	10 - 2	Strings ice to west.
27	Fog and drizzle all day	1 1	No ice in sight.
28 29	Overcast with drizzle	$\frac{1}{2} - 10$	Strings of ice to west. Ice inshore to southwest elsewhere open water.
30	Partly cloudy	1 - 35	Strings ice to west.
31	Mostly to partly cloudy	30	Shore ice to southwest.
Aug.	İ		
1	Clear to cloudy	35	Few scattered strings ice.
2	Clear to partly cloudy	35	Few pieces ice at entrance and in cove.
3 4	Partly cloudy to cloudy	35 35	Loose strings ice to west. Few strings ice inid channel.
5	Fine and clear Mostly clear all day	35	Loose ice to west and southwest.
6	Clear	35	Few strings ice mid channel.
7	Clear	35 35	Some strings ice mid channel.
8 9	Mostly clear Partly coudy	35	No ice in sight
10	Overcast to clear	30	u u
11	Mostly clear all day, fog	0 - 25 0 - 20	« «
12	Fog during A.M., clear during P.M.	0 - 20	
13	Partly cloudy to clear	31	" "
14	Clear. Clear to overcast	35 30	
15 16	Overcast with rain and fog	90	i u u
17	Overcast, fog and drizzle	1 - 25	и и
18	Fine and clear		.c. 44 .c. 44
19 20	Overcast with rain Overcast, trace of rain		" "
21	Light rain	$\frac{1}{2} - \frac{15}{2}$	44 44
22	Overcast, drizzle, clear during	2 - 30	"
23	P.M. Overcast all day	35	u u
24	'Overcast to clear	30	" "
25	Overcast with rain and fog	$\frac{2}{1} - \frac{10}{10}$	46 46
$\frac{26}{27}$	¡Fog and drizzle to overcast	$\frac{1}{2} - 10$	" "
28	Overcast to partly cloudy	10	" "
29	Overcast, all day	10 - 35	
$\frac{30}{31}$	Overcast, rain and sleet Overcast, rain in early A.M	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	I
	1		
Sept.	Intermittent rain	30 - 1	No ice in sight.
$\frac{1}{2}$	Overcast with drizzle	3 - 10	" " "
	Overcast, rain and snow during	$\frac{1}{2} - \frac{10}{12}$	u u
	might.	12	"
4 5	Partly overcast	35	u u
6	Overcast	1 - 35	
7	Overcast, rain and fog	$ \begin{array}{ccc} 10 & - & \frac{1}{2} \\ 0 & - & \frac{1}{2} \end{array} $	
8 9	Twenty-four hours fog	0 - §	" "
10	Overcast, snow flurries during		u u
	P.M.	-	
11	Overcast to clear	30 30	" "
12	Partly cloudy	. 50	•

30 NOTTINGHAM ISLAND METEOROLOGICAL REPORT, 1939—Cont.

	Mean	Air Temp.		Wind, 8 a.m.		Wind, 8 p.m.		Hours	Precipitation	
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain or Snov	
							1	1 - 0	8 a.m.	8 p.m.
1939 September										
13	29.86	39	33	SE.	16	E.	16			l
••	00 70			l		Į.	ļ			
14	29.73	37	32	Ε.	10	E.	6		.05	-11
15	29.65	37	30	SE.	10	sw.	22		-63	
16 17	29·76 29·96	37 35	32 28	NW.	2 16	N. W.	28 10		-11	.48
18	29.45	36	32	św.	22	s.	10	6	.02	Trace
19	29.60	42	33	NE.	6	NW.	16	10	Į.	1
20	29.83	42	31	NW.	16	SW.	16		1	
21	29.79	36	28	N.	16	N.	16		∙07	
22	29.59	32	26	N.	16	SE.	6		.01	
23	29.42	33	28	NW.	10	NW.	16		· · · · · · · · · · · · · · · · · · ·	⋅05
24 25	29·37 29·63	34 37	30 31	N.	2	·		6	∙18	····· 🙀
		1				S.	16			-09
26 27	29·48 29·36	38 36	28 29	NE. N.	10	NE. NW.	10 16		·01 Trace	
		- 1		1	-	i .				
28	29·44 29·56	33 33	29 29	SW.	28 10	SE. S.	10 16		·05	·09
30	29.47	32	29	s.	16	E.	10		-04	
	20.21	32	28	3.	10	E.	10		.04	
October 1	29.56	38	23	E.	6	N.	6			
2	29.79	38	26	w.	6	NW.	16			
3	29 . 95	33	27	NW.	16	NW.	îŏ		-07	100
4	30.07	32	23	N.	10	N.	5			
5	30 · 15	33	19	S.	4	S.	16			
6	30.06	33	26	SW.	50	SE.	10			
7	29.46	33	28	SE.	28	SE.	16			1 .12
8	29 · 14	34	31	8.	28	SW.	45		.02	-10
9	29.46	33	29	w.	28	W.	28		-10	.18
10	29.71	32	28	<u>W</u> .	16	W.,	16			.05
11	29.79	34	21	W .	6	Calm			-18	··· ·
12	29.90	34	20	N.	6	N.	4			
13	29.93	29	15	NE.	4	N.	9	••• ••		
14	29·88 29·72	28 29	14 17	N. N.	4 4	N.	4 6		∙01	
16	29.35	30	23	SE.	16	N. NW.	22		·17	·03
17	29.42	31	22	NW.	9	N.	6		.06	Trace
18	29.53	31	23	NW.	16	NW.	1 6		•03	
19	29.59	27	19	NW.	9	NW.	16			
20	29.60	27	19	NW.	16	S.	6			-08
21	29 · 23	30	23	S	28	E.	6		·20	
22	29.54	30	17	NE.	22	N.	22			.06
23	29 · 94	24	17	N.	16				.01	
24	29.95	20	16	NE.	16	N.	22		·01	.05
25	29.51	22	17	N. N.W.	28 22	NW.	28 28		.01	
26 27	29·75 29·70	24	15 16	14.44	22	S.W. N.	20			·02 ·01
28	29.67	27 22	9	NE.	9	É.	9			101
29	29.85	25	10	ŝw.	16	ŝw.	28		,	
30	29.74	26	16	Ñ.	9	ÑE.	16		∵ .05	
31	30.07	23	9	NE.	6	N.	9			
November		ľ	i							:
1	30.07	23	9	N.	9	NW.	22		٠,,,,,	·01
2	29.70	23	9	NE.	16	N.	16		.08	•04
3	29.92	27	13	N.	18	SW.	28		.01	.01
4	29 · 62 29 · 55	29 30	25 28	S. SW.	16 16	8. W.	16 28	7	·05 ·01	·03 ·04
6	30.04	30	10	.,,,,,		Ĕ.	6			
7	29.73	27	12	SE.	22	Ē.	22			02
8	29 - 39	29	26	E.	22	S.	16		∙08	.11
9	29 - 67	30	24	SW.	16	SW.	28			

NOTTINGHAM ISLAND METEOROLOGICAL REPORT, 1939—Cont.

		<u> </u>	
Date	General Weather	Visibility	Ice Conditions
1939		Miles	
Sept.		Miles	
13	Partly cloudy to overcast, snow	25 - 5	No ice in sight.
	late P.M.		cc to
14	Overcast to partly cloudy, inter-	1 - 8	
15	Overcast, rain during A.M	1 - 12	Few pieces scattered ice.
	Overcast	20	No ice in sight.
17	Overcast, snowflurries	10 - 20	" " <u>"</u>
18	Overcast, sleet turning to drizzle	$\frac{1}{8} - 2$	u u
10	during afternoon.	20	u u
19 20	Mostly overcast	20 - 10	u u
21	Overcast, rain and snow	8 - 20	и и
22	Overcast	20	" "
23	Snow flurries	15 - 0	66 66 66 66
24	Overcast, snow and rain	1 - 8	" " " " " " " " " " " " " " " " " " "
25	Overcast to partly cloudy, snow flurries during A.M.	1 - 20	
26	Overcast	20 - 10	u u
27	Overcast to partly cloudy, light		u u
	snow during A.M.		
28	Snow all day	1	« «
29	Overcast with snow to partly	1 - 20	. " "
30	Crores t all day	30	" "
90	Overcast all day	30	
Oct.			
1	Cloudy and fine	30	u u
	Overcast, intermittent snow	1 - 30	· · · · · · · · · · · · · · · · · · ·
	Clear	30	" " "
	Fine and clear	30 30	" "
	Overcast Cloudy to partly cloudy	30	u u
	Overcast with snow	1 - 6	u u
	Overcast, intermittent snow and	1 - 5	" "
_	drift.	_	u u
9	Snow	1 3,0	" " "
10 11	Overcast, snow	1 - 10 30	" "
11	Overcast to partly cloudy, snow during night.	30	
12	Overcast to partly cloudy	35	u u
13	Partly cloudy to overcast.	30	u u
	Overcast, snow flurries	10 - 35	" "
15 16	Overcast, snow flurries	30 - 1 $2 - 25$	" "
16 17	Cloudy to overcast, light snow. Overcast, scattered snow flurries.	25 - 15	u u
î8	Overcast, trace of snow	$\frac{1}{2} - \frac{1}{25}$	u u
	Overcast	25	· · · · ·
20	Overcast, moderate snow	½ - 20	" "
21	Overcast	25	Slob ice in cove.
$\frac{22}{23}$	Overcast, with light snow.	$\frac{1}{2} - 5$ $25 - 15$	No ice in sight.
23	Overcast, with occasional snow; flurries.	20 - 10	
24	Overcast, intermittent snow	1 - 6	u u
25	Overcast, slight ground drift	6 - 12	" "
26	Overcast with snow	15	" "
27	Partly cloudy to overcast, snow	30 - 1	CI I ' I am alama
28 29	Clear to overcast	35 30 - 0	Slob ice along shore. No ice in sight.
30	Overcast with snow	25 25	Cove frozen over.
31	Partly cloudy to clear	25 - 30	No ice in sight.
7.	2 111 119 010 1119 00 1/10191 111 11		
Nov.	<u>.</u>		
1	Overcast, moderate snow	5 - 25	No ice in sight.
$\frac{2}{3}$	Scattered snow flurries Snow and light drift	$12 - \frac{1}{2}$	" "
4	Overcast, drizzel during day.	$\frac{1}{2} - 25$ $25 - 1$	u u
5	Drizzle and snow	6 - 1	" "
6	Overcast to partly cloudy	25	" "
7	Overcast with drizzle and snow	2 - 15	ce ce
	Snow during day	1 - 6 15	· · · · · ·
9	Overcast all day	10	

\$32\$ NOTTINGHAM ISLAND METEOROLOGICAL REPORT, 1939— ${\it Conc.}$

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain o	r Snow
]					8 a.m.	8 p.m.
1939 November 10. 11. 12. 13. 14. 15. 16. 17.	29 · 91 29 · 70 29 · 75 29 · 95 30 · 16 30 · 04 30 · 00 29 · 96 20 · 98 30 · 19	29 29 30 31 31 23 20 17 14 15	22 18 27 25 20 15 14 10 5	SW. S. E. E. W. NE. NE. NE.	22 6 22 9 22 22 16 9 6	S. SE. E. SW. W. SE. E.	9 16 9 22 22 22 22		.04 .02	0.00
20	30·15 29·82	19 22	-4 19	N. S.	6 22	SW. E.	9			··· ·0
22	29·83 30·17 30·16 29·52 29·84	22 12 14 25 25	-1 -3 -3 14	N. N. NW. SW.	22 22 22 22 28	N. N. W. W. NW.	22 22 28 9		-01	
27 28	29·70 29·63	20 19	4 2	W. N.	16 16	NW. N.	9 6		01	
29 30	28·91 28·97	22 22	$-11 \\ -10$	N		NW. N.	50 50			.03

CHURCHILL METEOROLOGICAL REPORT, 1939

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain c	r Snow
	metti		1121111.	1511.		1711.		i rog	8 a.m.	8 p.m.
1939 July 1	29·73 29·53 29·49 29·36 29·54 29·68 29·84 29·97 29·87 29·95 29·50 29·88 30·17	54 55 65 77 65 66 66 68 68 69 69 62 48 60	38 41 42 53 45 49 45 47 47 48 38 36	N. W. W. SW. NW. SW. NW. NW. NW. NW. NW. NW. NW. NW. NW. N	14 12 14 28 20 16 12 16 10 16 12 16 24 4	E. NE. SE. NW. NW. E. M. NE. E. M. NE. E. E. NE. NE. E.	14 14 10 10 16 2 18 12 1 1 14 20 2		.01	
15	30·09 30·03 30·01 29·80	76 72 62 62	41 50 42 39	S. SE. SE. SE.	12 12 18 8	S. SE. E. S.	20 15 24 12		·04 ·01 ·34	
19	29·70 29·72 29·64 29·47 29·87 29·77 29·85 29·75 30·00	70 68 61 59 58 58 55 65 67	40 47 45 48 40 44 42 42 46	S. SE. W. W. W. S. N.	10 4 8 14 10 8 18 12	SW. E. E. NW. NW. F. NW. NW.	6 14 3 14 6 12 20 10 8	6	· 37 · 01 · 02 · 07 · 10 · 07	-38

NOTTINGHAM ISLAND METEOROLOGICAL REPORT, 1939-Conc.

1939 Nov.			Ice Conditions
3.7		Miles	
Nov.			
	Overcast, intermittent snow		No ice in sight.
	Overcast, light snow	5	" "
	Overcast	6 - 25	(" "
13	Overcast to partly cloudy	5 - 35	66 66 66 46
	Intermittent snow	25 - 1	" "
	Intermittent snow	25 - 3	
	Intermittent snow	25 - 1	" "
	Overcast		
	Partly cloudy		Some slob ice in cove.
	Overcast to clear, trace of snow	5 - 25	No ice in sight.
	Clear to overcast, snow during P.M.		Light ice to westward.
	Overcast to partly cloudy	2 - 10	String ice to west
	Partly cloudy, snow		String ice to west.
	Fine and clear		String ice to west.
	Overcast		String ice to west.
	Overeast, light ground drift		Field ice to west, few leads.
	Fine and clear.		Field ice to west, few leads.
- 1	Overcast, snow and drizzle most of day.	2 - 10	Loose scattered ice to west.
28	Partly cloudy to overcast	20	Scattered strings ice to west.
	Heavy drift		Scattered strings ice to west.
30	Overcast with heavy ground drift, to partly cloudy.	12 - 0	Scattered strings ice to west.

CHURCHILL METEOROLOGICAL REPORT, 1939

Date	General Weather	Visibility	Ice Conditions
1939		Miles	
July 1	Partle alander	15	I area systemal is to harizon
2	Partly cloudy	15 15	Loose scattered ice to horizon.
	Partly cloudy.	15	Loose ice to horizon.
	Cloudy with thunderstorm	15	Scattered pieces ice to horizon.
	Showers	15	Loose scattered ice to horizon.
	Clear to partly cloudy	15	" "
ž	Mostly cloudy.	15	u u
8	Partly cloudy	15	"
	20 1	15	16 66
10	Partly cloudy	15	u u
11	Clear to cloudy	15	" "
	Overcast with rain .	0 - 10	Scattered ice to horizon.
	Partly cloudy	15	Loose packed ice in shore.
14	Clear	20	Loose scattered ice extends about two miles off, thence close packed to horizon. Some ice moving in and out river with tide.
15	Partly cloudy	15	Few scattered strings ice, mostly open water.
16	Partly cloudy	15	Few pieces scattered ice.
17	Cloudy, rain during P.M	10	No ice in sight.
18	Rain during day, lightning and	5 - 10	. " "
10	thunderstorm during P.M.		
	Rain and thunderstorm	15	
21	Partly cloudy Rain and thunderstorm	15 0 - 15	
	Partly cloudy	15	Few pieces ice on N.E. horizon.
	Cloudy with rain	15 15	No ice in sight.
	Partly cloudy		Few pieces ice in distance to northeast.
	Cloudy, light drizzle all day		No ice in sight.
	Cloudy, fog during A.M		Scattered ice to northeast.
	Partly cloudy		No ice in sight.

34
CHURCHILL METEOROLOGICAL REPORT, 1939—Cont.

	36	Air T	emp.	Wind,	8 a.m.	Wind,	, 8 p.m.	17	Precip	itation
Date	Mean Baro-	V	M:-	Dir.	Vel.	D:-	Vel.	Hours	Rain o	r Snow
	meter	Max.	Min.	Dir.	vei.	Dir.	vei.	Fog	8 a.m.	8 p.m.
1939										
July 28	29.83	79	51	sw.	10	s.	2		-01	
9	29.67	69	53	S. N.	6	E.	14		.02	
0	29·86 30·08	49 65	42 42	N. E.	24 5	NE. SE.	16 18	16		
August										
1	29.71	69	48	SE.	16	SE.	24	;		.0
2	29·25 29·50	61 55	48 48	SW. W.	12 24	NW.	28 24	4		Trace
4	29.72	54	47	NW.	22	NW.	10			
5	29.82	54	41	NW.	10	E.	16			
<u> </u>	29.89	60	41	SE.	16	SE.	18			
7	29.98	66	43	SE.	12	SE.	20	• • •		
8 9	30·05 30·10	55 47	41 39	SE. NE.	8	E. NE.	16 10	10		
Ö	29.95	63	42	E.	2	SE.	10	10		
i	29.83	58	42	NE.	ı ş	NE.	16	10		l
2	29.86	47	42	NE.	20	NE.	8	11		[
3	29.75	61	42	<u>s</u> .	4	SE.	18			
<u>4</u>	29.75	48	42	Ε.	20	NE.	5	1		-(
5	29.92	77	38	S.	6	SW.	14			۱ · · · ·
6	29·85 30·05	71 62	54 47	NE.	12 22	Calm E.	8			
7 8	29.87	54	41	S.	24	ŠĖ.	10			
9	29.74	64	47	SW.	8	NE.	12	2		
Ö	29.86	67	43	w.	4	s.	12	l		
1	29.63	73	56	S.	14	S.	11			
2	29.70	65	51	SE.	7	N.	14	4]
3	29.86	55	48	N.	10	E.	8			.2
4	29.82	68	48	SW.	12	NE.	8			
5	29.13	59 77	50	NW.	10	NE.	10			T
6	30·24 29·96	50	42 39	SE.	5 14	SE.	10			Trace
8	30.11	52	42	N.	28	E.	4			1 3
9	30.09	53	$\hat{32}$	s.	13	SE.	20	4	1	l`
0	29.74	54	44	SW.	16	NE.	28	4		1 .8
1	30 05	52	40	NW.	6	s.	18			
September	29.70	80	42	NW.			10	1		
1 2	29.70	60 45	43 39	E.	19	S. NE.	18 36	14	•45	
3	29.80	44	38	NE.	34	NE.	36	17	70	
4	30.07	40	36	N.	18	NE.	4			· · · · · · ·
5	29.87	50 50	31	S.	12	SE.	24		∙01	
в	29.60	58	41	8.	14	NW.	18		⋅34	
7	29.83	56	40	W.	21	N.	6			
8	29.70	58	36	SE.	15	NE.	30			
9	30·08 30·01	43 47	34 33	NW.	22	N. S.	10		Trace	1
1	29.80	44	35	SE.	22	SE.	10	1	Trace	
2	29.82	45	41	ESE.	6	NW.	6	10	-11	
3	29.91	45	35	NW.	15	NW.	12	8	1	
4	29.79	58	34	N.	12	SW.	10		į	١
5	29.86	45	39	W.	7	N.,	12			
<u>6</u>	30.20	43	35	SE.	9	SW.	10		j	j
<u>7</u>	29.89	65	34	S.	22	SW.	22			ļ
8	29 · 63 29 · 98	63	48 43	NW.	12 14	NW.	4		l	
9 0	29.98	56 56	43 37	S.	10	N. N.	30		05	
1	30.12	42	34	NW.	18	w.	14			1
2	29.92	38	30	NW.	29	NW.	42			
3	29.98	38 34	27	NW.	29	NW.	22		- 10	
<u>4</u> i	30.05	31	28	NE.	14	NW.	12		.05	
5	29.90	32	25	NW.	26	NW.	19		.02	¦
6. 	29.77	33	26 27	W. NW.	15	SW. NW.	6		·02 ·02	
			2/	1 13 57	12	I IV VV.	17		· · U2	1
7	29.73	34	00							1
	29·73 29·71 29·49	33 35	26 28	NW. W.	17 30	NW. W.	18			

CHURCHILL METEOROLOGICAL REPORT, 1939—Cont.

===			1		
Date	General Weather	Visibility			Ice Conditions
1939		Miles			
J uly 28	Mostly cloudy, heavy thunder	12	No ic	e in sight.	
29	during P.M. Clear to cloudy	15	"	"	
30 31	Partly cloudy	0 - 15 15	"	"	
Aug.	Cloudy, rain during P.M	15	No ic	e in sight.	
2	Overcast with rain	0 - 8	"	"	
3 4	Cloudy, trace of rain	15 15	"	"	
5	Clear to cloudy	5	"	"	
6	Clear	15	"	"	
7 8	Clear to partly cloudy Clear	15 15	"	"	
9	Overcast	0 - 15	"	"	
10	Cloudy	$\frac{1}{2}$ - 15	"	"	
11 12	Cloudy	$\begin{array}{ccc} 2 & -15 \\ 0 & -15 \end{array}$	"	"	
13	Cloudy all day.	15	"	"	
14	Partly cloudy	4 - 20	"	"	
15	Cloudy Cloudy, rain during P.M	15 5 - 15	"	"	
16 17	Cloudy, rain during r.M Cloudy to partly cloudy	5 - 15 15	"	"	
18		5 - 15	"	"	
19	Overcast with rain Cloudy, showers.	0 - 15	"	"	
20 21	Cloudy Partly cloudy	15 - 20	"	"	
22	Overcast	1 - 15	"	"	
23	Partly cloudy to clear	15	"	"	
24	Partly cloudy	15	"	"	
$\begin{array}{c} 25 \\ 26 \end{array}$	Partly cloudy Trace of rain	20 15	"	"	
27	Overcast, rain in P.M.	10	"	"	
28	Cloudy all day	15	"	"	
29 30	Cloudy	$\begin{array}{cccc} 2 & - & 15 \\ 1 & - & 10 \end{array}$	46	"	
31	Overcast, hravy rain during night. Partly cloudy	20	"	"	
Sept.	Light rain during A.M	15	No ic	e in sight.	
2	Overcast, rain and dense fog	0 - 4	"	"	
	Overcast	5 - 10 15		"	
	Overcast all day	15	44	"	
6	Overcast to partly cloudy	15	"	"	
7	Clear to partly cloudy	15	"	"	
8 9	Cloudy	15 1 - 15	"	"	
10	Cloudy	15	"	"	
11	Rain during night	15	"	"	
12 13	Overcast, foggy	1 - 5 1 - 15	"	"	
14	Cloudy	15	**	**	
15	Cloudy	15	"	"	
16 17	Overcast	15 15	"	"	
18	Cloudy to partly cloudy	15	"	"	
19	Partly cloudy with showers	15	"	"	
20	Cloudy	15	"	"	
21 22	Cloudy	15 10 - 0	44	**	
23	Overcast, snow squalls	0 - 20	"	"	
24	Overcast, snow flurries	10	"	"	
25 26	Overcast, snow flurries	3 - 15 15	"	"	
	Partly cloudy to overcast	15	"	"	
28	Overcast	15	"	"	
29 30	Overcast, with snow squalls	1 - 15 0 - 15	"	"	
au I	Overcast, neavy snow	0 - 15			

36
CHURCHILL METEOROLOGICAL REPORT, 1939—Conc.

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain o	r Snow
									8 a.m.	8 p.m.
1939 Oct.				!						
1	29.98	32	28	NW.	28	NW.	16		.02	
2	30.11	40	25	S.	4	W.	10			Trace
3	30.07	39	27	W.	4	S.	10		⋅02	
4	29.86	43	26 38	S	16	S. S.	22			
5	29.74	45	38	SW.	16	S.	10			٠.
8	29·50 29·48	40 31	33 27	E. NW.	10 42	S. NW.	10 34	3	01	.0
8	29.88	33	25	NW.	16	w."	16		.01	
9	29.96	35	22	NE.	10	SE.	4			
0 1	29·90 30·07	31 29	26 24	NE. NW.	28 16	NW. NW.	16 22		·10 ·02	
2	30.24	25	17	NW.	22	NW.	22		Trace	-1
3	30.34	23	20	N."	22	w."	16		.03	
1	30.11	23	17	SE.	10	NW.	16			··i
5	30.09	27	16	NE.	22	NW.	42		∙05	
<u>8</u>	30.27	16	. 7	NW.	28	NW.	28	. ,	.02	
7	30.17	22	12	NW.	16	SW.	10		ł	
3 9	29·96 29·78	23 28	5 18	SE.	10	E. SE.	22			
D	29.41	36	29	SW.	16	NW.	16		· ·	٠.
i	29.75	31		N.	34	NW.	28		02	• 0
2	30.08	ii	8 5	NW.	28	NW.	22		.04	·ŏ
3 <i></i>	30.05	21	3	SW.	10	SW.	10		.03	Trace
	30.12	20	9	NW.	10	NW.	16		.03	
§	30.22	7	ō	NW.	22	W	16			
3 7	30·00 30·03	13 18	5 6	SW. W.	10	NW. NW.	10 16		.03	0
3	29.61	23	4	s.	10	S.	16		-01	'0
9	29.78	26	17	sw.	102	Νw.	28		'0'	Ö
)	29.78	17	6	NE.	16	SE.	10	· ;	-03	1
L	30 · 13	28	15	NE.	16	N.	22		.05	
November	30.05	27	12	NW.	22	s.	10		.12	
									1	
2	30·03 29·79	33	14	SW. SW.	16	SW.	10			
3 4	29.13	33 37	21 20	w.	16 16	S. W.	16		j <i>.</i>	· · · · · ·
				NW.		NW.		• ••••		
5 3	29·90 29·77	30 30	20 20	E.	16 22	N.	10 28		.15	••••
7 	29.89	22	ő	ÑW.	28	NW.	42		.06	
3	30.01	-2	10	NW.	34	NW.	48			
). 	30.00	-6	- 13	NW.	22	NW.	16			
). 	30.02	-5	-10	NW.	10	NW.	16			
l	30.04	3	-5	S. NW.	3	NW. NW.	16		ļ	· · · · · ·
2	30·22 30·27	1 3	$-6 \\ -5$	Calm	16	Calm	16			
4	30.12	19	3	E.	5	NW.	28			0
5	29.82	23	13	Calm		NW.	34		··· ·01	·ì
6	30.23	5	ő	NW.	10	Calm			! :-	ŀ∙ē
7. 	29.88	13	2	Calm	! . <i></i> .	NW.	34		: .19	·0
<u>8</u>	30.39	19	-3	NW.	28	NW.	4		¦	
g. 	30.41	9	-17	Calm		SW.	6	· ••••		
0	29.81	23 23	10 14	S. NW.	20 28	SW. N.	5 16			
2	29·89 30·06	23 16	8	NW.	8	SE.	6	8	.03	
3	30.26	18	10	E.	10	E.	6	10		l
1	30.36	21	Ĩš	s.	ě	s.	16		J	
5	30.11	33	24	W.	22	W.	26		[
<u>3</u>	30 · 16	26	19	SW.	6	SW.	8	10		
(30.11	27	19	NW.	10	NW.	22			
} .	29.72	26	-3	NW.	6	W.	22	3		
9 	29·84 29·93	18 -1	-3 -14	N. NW.	28 10	N. Calm	6		06	
	4.27 1 14.5		14	1 1 7 17 .	11/					

CHURCHILL METEOROLOGICAL REPORT, 1939-Conc.

Date	General Weather	Visibility	Ice Conditions
1939		Miles	
Oct.		Mittes	
1	Overcast	20	No ice in sight.
$\frac{2}{3}$	Overcast, light snow	$\begin{array}{r} 2 - 15 \\ 20 \end{array}$	" "
4	Overcast	15	"
5	Overcast	15	
6 7	Overcast, light drizzle	1 - 15 $10 - 20$	" "
8	Partly cloudy Partly cloudy to clear	15 - 20	
9	Partly cloudy to overcast, intermittent snow.	5 - 15	
10	Overcast slight freezing driggle	15 12	Slushy ice coming down river and forming along
11	Overcast, slight freezing drizzle during A.M.	12	shore.
12	Overcast, ground drift	1 - 10	No ice in sight.
13	Cloudy, snow during A.M	12	'River full slob ice. Slob ice in river.
14 15	Overcast with snow Cloudy, ground drift	0 - 15	No ice in sight.
16	Cloudy	10	No ice in sight. Slob ice in river.
17	Partly cloudy to clear	15	Slob ice forming river bay.
18	Overcast .	10 12	No ice in sight. River full of slob ice.
19 20	Overcast to partly cloudy Overcast	10	No ice in sight.
21	Overcast, snow squalls	0 - 3	River full broken ice.
22	Snow squalls and light drift .	1 - 10	No ice in sight.
23	Cloudy with snow flurries	12	River full broken ice. River frozen and field ice on horizon.
$\frac{24}{25}$	Overcast	10 15	River and bay full broken ice.
26	Partly cloudy with snow.	10	River and bay full of ice.
27	Overcast with snow flurries	12	River and bay full of broken ice.
28 29	Cloudy, snow during night	10 0 - 6	Ice in river. No ice in sight.
30	Overcast, snow squalls	1 - 10	" " "
31	Cloudy, snow flurries	10	
Nov.	Clauda An alao anomi dunina	10	No ice in sight.
1	('loudy to clear, snow during night.	10	140 ice in aigire.
2	Clear	20	No ice in sight.
3	('lear	15	Ice in river and bay.
4	Clear to cloudy	15	River frozen over two miles inland, ice along shore and in bay.
5	Cloudy	10	River covered, brozen ice.
6	Overcast with snow	1	No ice in sight.
7	Cloudy, heavy ground drift	0	" "
8 9	Clear sky, heavy ground drift	0 10	No open water in sight.
10	Clear to partly cloudy	15	" "
11	Cloudy to clear	10	46 66
$\frac{12}{13}$	Clear to partly cloudy	15 10	16 46
14	Snow	1 - 10	Open lead to river, no ice ir bay.
15	Overcast, snow and ground drift.	0	No ice in sight.
16	Snow during P.M	10	No open water.
17 18	Ground drift Snow during A.M	0 0 - 15	u u
19	Partly cloudy to overcast.	10	" "
20	Cloudy with snow	12	Scattered ice in bay.
$\begin{array}{c} 21 \\ 22 \end{array}$	Overcast, moderate ground drift. Foggy most of day	2 - 5	Drift field ice in bay. No ice in sight.
23	Clear to foggy	$\frac{1}{2} - 10$	Heavy ice in river, floating ice in bay.
24	Partly cloudy to clear	15	No ice visible in bay.
25	Clear to partly cloudy	15	River frozen, no ice in bay.
26 27	Dense fog	$\frac{1}{2} - 10$	River solid, bay floating ice. Field ice in bay.
28	Overcast	1 - 15	Scattered ice in bay.
29	Cloudy with snow	10	Few leads in bay ice.
30	Overcast	12	Few patches open water in bay.

38
CHESTERFIELD INLET METEOROLOGICAL REPORT, 1939

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Baro-	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain o	r Snow
	meter	Max.	MIII.	Dir.	Vei.	1711.	Vel.	rog	8 a.m.	8 p.m.
1939										
July	00 50	E0.	20	NW.	18	NW.	16		.04	
 	29 · 53 29 · 19	50 47	36 36	NW.	14	NW.	28		∙04	
	29.10	46	35	ŵ.''	24	w.	28		•02	l
	29.31	46	33	Calm		s.	10		.02	• 1
· • • • • • • • • • • • • • • • • • • •	29.19	54	33	SW.	20	W.	18		$\cdot 4\overline{3}$	Trac
	29.32	48	38	SW.	14	N.	4		-01	-0
	29.56	54	39	NW.	14	NW.	18		.03	∙0
	29 · 67	56	42	NW.	18	NW.	18			<u>.</u>
	29.56	56	45	N	6	NW.	14			.0
	29 · 64	58	40	NE.	10	NW.	16			.0
	29.78	57	43	NW.	20	NW.	16			
. 	29.62	58 53	42 39	NW. S.	12	S. S.	14 10	· · · · · · · · ·		
· · · · · · · · · · · · · · · · · · ·	29·86 30·10	54	43	Ň.	10	s.	14		.01	
	30.11	60	42	sw.	12	š.	14		Trace	
	30.08	68	40	sw.	10	sw.	16	١		
	30.18	66	44	Calm		w.	Î 8	l		ļ .
	30.07	64	41	w.	2	SE.	14]	•03	[
	29.65	43	40	S.	14	S.	10	9	.01	
	29.55	66	40	W	16	W.	16	· · · · · ·	<u> </u>	
• • • • • • • • • • • • • • • • • • •	29.46	66	50	NW.	16	W.		ļ _• -	Trace	
•••••	29 20	55	41	W.	16	S. NW.	8 16	1	.03	
. 	29.36	56	41 42	NW. NW.	20 18	NW.	18	1		
	29·56 29·69	54 54	40	w."	6	S. "	16		· · · · · · · · · · · · · · · · · · ·	
· • · • • • • · · · · · · · · · · · · ·	29.66	46	38	Ë.	4	E.	1 4	12	Trace	
	29.71	60	40	NW.	18	Ñ.W.	20			
• • • • • • • • • • • • • • • • • • •	29.72	64	48	NW.	6	NW.	12		∙06	
	29.75	62	42	E.	4	E. N.	12		∙01	.3
	29.89	61	30	NE.	14	N	14			
• • • • • • • • • • • • • • • • • •	30.02	62	48	NW.	14	s.	14	ļ		
Aug.										
• • •	29.88	56	41	S.	10	S.	22			٠٠ ا
. 	29.48	45	40	SE. NE.	22 8	SE.	18	16	.16	.03
	29.41	42 46	39 39	E.	10	: E. E.	12	16	.06	:0
	29·61 29·82	52	39	N.	6	SE.	12	"	'00	
· · · · · · · · · · · · · · · · · · ·	30.00	43	38	SE.	8	s.	22	7		
	30.11	59	40	Š.	16	SW.	12	1 8	l	ļ , ,
	30 18	50	40	S.	8	S.	6	! .		١.
	30.16	60	44	NE.	10	S.	10	•	⋅05	· · ·
	29 · 98	63	49	NW.	10	W.	12	l .	• • •	
	30.01	52	43	SE.	6	SW.	10	4		
· · · · · · · · · · · · · · · · · · ·	29.86	63	44	('alm		SW.	6	ļ		j
	29.75	63	46	NW.	10	E.	10	:		1
• • • • • • • • • • • • • • • • • • • •	29 · 84 29 · 76	52 58	43 43	E. S.	8 20	S. S.	14	!	-05	
· · · · · · · · · · · · · · · · · · ·	29.70	68	46	w.	10	N.	16			ļ .
• • • • • • • • • • • • • • • • • • • •	20 10	"		'''	1		-*	1		1
	29.98	67	44	NE.	8	S.	14	i		1
	29.93	55	39	S.	12	S.	24	j		· • 0
	29.76	46	39	S.	12	E.	8		⋅02	: •1
	$29 \cdot 80$	45	39	Calm		S	6	5		.0
	$29 \cdot 90$	45	38	SE.	10	SE.	14	20	٠	٠٠٠٠٠ ۽
	29.78	45	41	E.	18	NE.	8		.53	.5
	29 · 81	46	40	NE.	8	SE.	8	2 6	.03	
	29 60	64	38	SW.	20	W. NW.	20 36	0	.08	
••••	29.75	59	41	NW.	30	NW.	18	1		
	30·10 29·92	50 50	34 37	NW. SW.	26 14	SW.	32			Trace
• • • • • • • • • • • • • • • • • • •	29.92	46	35	N.	32	NW.	18		.18	1
	30.08	46	39	w.	6	S.	16	l :::	l	
	29.81	43	39	E.	14	NE.	20		.52	-0
• • • • • • • • • • • • • • • • •	29.94	42	32	NW.	8	SW.	24			Trace
September				1			1	ĺ	}	
September	29.46	43	38	S.	6	NW.	22			·0
• • • • • • • • • • • • • • • • • • •	29.68	43	33	NW.	16	NW.	9			
		43	33	N.	9	NE.	9	1		
3	29·90 29·97			N.	6	27000	9		1	١::

CHESTERFIELD INLET METEOROLOGICAL REPORT, 1939

Date	General Weather	Visibility	Ice Conditions
		_	
1939 July 1	Overcast	Miles	Floe edge one mile off shore few strings outside.
2 3	Overcast, with intermittent rain Overcast, with intermittent rain	3 - 7	Open water one mile off shore. Open water one mile off shore.
4	Overcast, with intermittent rain.	5	Several open leads in floe.
5	Cloudy with showers	4 - 7	Cove ice breaking up, water in bay with few strings ice. Ice in cove and to horizon.
6 7	Cloudy, intermittent rain Cloudy, with showers	7	Scattered loose ice to horizon.
8	Cloudy	7	Few strings loose ice off shore.
9 10	Overcast with showers	7 7	Loose scattered ice to horizon. Few pieces loose ice.
11	Cloudy	7	No ice in sight.
12	Cloudy to clear	7	Few pieces loose ice.
13 14	Cloudy with rain	7 7	Few pieces loose ice. Few pieces loose ice.
15	Clear to cloudy	7	No ice in sight.
16	Clear	7 7	
17 18	Clear to cloudy	7	" "
19	Cloudy	0 - 7	" "
20	Cloudy		u u
21 22	Cloudy	1 - 7	u u
23	Cloudy, trace of rain	7	
24	Cloudy		46 66
25 26	Partly cloudy	0 - 7	"
27	Cloudy, trace of rain	7	" " "
28 29	Partly cloudy	3 - 7	u u
30	Clear to cloudy.	7	
31	Partly cloudy		
Aug.	Overcast	7	No ice in sight.
2	Overcast	7 - 20	u u
3		$\begin{bmatrix} 2 \\ 2-7 \end{bmatrix}$	" " "
4 5	Overcast, rain and fog	7	u u
6	Partly cloudy Intermittent fog	2 - 7	46 46
7 8	Overcast, intermittent fog	1 - 7	" " "
9	Partly cloudy	7	" "
10	Partly cloudy	7 7	« « « «
11 12	Cloudy	0 - 7	" "
13	Cloudy	7	a at
14	Cloudy	7 5	cc
15 16	Overcast, rain during night Rain during night, clear during		" "
	day.	ŀ	
17 18	Clear Overcast, intermittent rain	7 5	" "
19	Overcast with rain to cloudy	3 - 7	<i>u u</i>
20	Overcast with rain to cloudy	1 - 7	« «
21 22	Overcast Rain all day	1 - 5	u u
23	Overcast, rain during night	1 - 7	" "
24	Cloudy, rain and fog during night.	1 - 7	66 66 66 66 66 66 66 66 66 66 66 66 66
25 26	Overcast to clear	7	"
27	Clear to overcast	7	u u
28 29	Clear	7 - 3	" "
30	Cloudy, intermittent rain	5	u u
31	Overcast, intermittent rain		· · · · · · · · · · · · · · · · · · ·
Sept.	Portly cloudy rain during night	7	No ice in sight.
$\frac{1}{2}$	Partly cloudy, rain during night.	7	" "
3	Cloudy	7	
4	Cloudy	7	ı " "

40 CHESTERFIELD INLET METEOROLOGICAL REPORT, 1939—Cont.

	.	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Mean Baro-		201	D:		73.	177.1	of	Rain o	r Snow
	meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	Fog	8 a.m.	8 p.m.
1939										
September			94	11/	9	sw.	16			Trace
5	29·91 29·56	44 41	34 32	W. S.	28	s."	16		08	·1
6 . 7	29.40	49	38	SW.	16	ÑW.	16			Trace
8	29.76	42	33	NW.	16	NW.	16	1	Trace	
9	29.99	42	32	N	9	N.	16		Trace	Trace
0	29.99	36	32 31	NE. E.	9	W. SE.	3 9		Trace	Trace
1 2	30·07 30·06	39 40	33	SE.	16	E.	22		.02	.0
3	29.84	39	35	E.	9	E.	6		_ ·30	Trace
4	29.69	42	35	N.	6	S.	22		Trace	•0
5	29.74	42	32 29	W. NW.	22	NE. W.	22	i		
6	30·14 29·74	42 40	36	14 44 .	, ,	s.	16	1		
7 8	29 53	47	39	N.	6	N.	9	1	.01	;
9	29.85	45	38	NE.	6	N.	9			١,
0	29.78	45	33	SW.	22	NW.	22		.01	.0
1	29.85	38	24	w.	16					
2	29.62	32	21	N.	9	N.	6		.01	Trace
3	29.79	32	25	NE.	28	N.	34		Trace	
4	$29.77 \\ 29.72$	28 28	24 23	NW.	28	NW.	22			
5 6	29.12	28	22			NW.	9		1	
7 .	29.59	28	25	NE.	9	N.	16		Trace	Trace
8	29.32	30	23	NW.	22	NW.	16		Trace	•
9	29.22	32 34	22 29	SW. NE.	9	SE. NE.	9 16		02	٠.٠
0	29.39	94	45	NE.	ľ	T.D.	10		"-	[
October	00 80		0,5	3.7	10	NW.	22		22	Trac
1	29·70 29·97	34 29	25 21	N. NW.	16	W."	10		Trace	114
2	30 00	29	17	N.	10	s.	îŏ			1
4	29.88	35	18	s.	22	S.	28		-01	Trac
E	29.62	37	31	S.	34	s.	22	2	.06	
5	29.69	36	28	N.	16	8.	16			•1
7	29 · 14	36	33	SE.	22	N.	16		-05	
8	29 · 32	35	21	NW.	40	NW.	42		.06	
9	29.68	29 28	18 19	NW. NW.	34 16	NW. N.	28 16			
0	29·76 30·00	23	18	, N.	10	Nw.	16		l	
2	30.11	23	15	Ñ.	16	N.	16			
3	30 · 18	16	10	NE.	16	Ŋ.	10			
<u>4</u>	30.10	19	14	NE.	10	N. NE.	8 16		10	
5	30·00 29·94	22 22	10 5	N. NW.	16 22	NW.	34		-04	!
0,	20.01	1 22							_	ĺ
<u>7</u>	29.86	15	10	NW.	34	NW. N.	22 16			Tra
8 9	29·82 29·73	12 11	5	NW.	22 16	w:	4			
9 0	29.73	22	8	NE.	16	NE.	22		•10	
1	29.69	14	1	N.	28	N.	28			
2	30.03	7	1	N.	28	N.	10			
3	30.04	22 25	-4 0	W. W.	4 4	SW. W.	3 6	j	20	:
4 5	29·95 29·88	25 8	-2	NW.	22	NW.	16			
6	29.88	6	-8	NW.	22	NW.	6			
7 	29.82	11	-4	SW.	10	NW.	16			
8	29.59	24	-5 15	SW.	10	S. NE.	16 22			
9 0	29·80 29·83	26 20	15 6	S. NE.	10	E.	16			Tra
1	30.28	9	$-\tilde{2}$	NE.	16	Calm				.
November										1
1	30 · 27	15	- 3	W.	10	W. SE.	16			
2	29.86	24 29	13 23	NE. SW.	10 22	SE.	10			
3 4	29 · 65 29 · 46	28	23	sw.	6	NW.	iŏ			
	29.59	23	4	w.	22	NW.	22 16			
5. 			6	NW.	10	NE.				

CHESTERFIELD INLET METEOROLOGICAL REPORT, 1939—Cont.

Date	General Weather	Visibility	Ice Conditions
1939		Miles	
Sept.	Cloudy, trace of snow during A.M.	7	No ice in sight.
6 7	Overcast with rain Cloudy, trace of rain.	3 7	u u
8	Partly cloudy	7	« « «
9 10	Cloudy, snow flurries Overcast, snow flurries Overcast, trace of snow	5 7	u u
11 12	Overcast, trace of snow Overcast, intermittent rain.	7 5	66 66
13	Overcast, intermittent rain	5	44 44 44 44
14 15	Overcast, rain Overcast to clear	5 7	
16 17	Cloudy Intermittent rain, overcast.	7 5	u u
18	Cloudy	7	
19 20	Cloudy Cloudy, intermittent rain and	7 7	"
21	snow. Partly cloudy, trace of snow	7	16 16
22	Partly cloudy, snow flurries	7	16 66 16 16
23 24	Partly cloudy Overcast, trace of snow	7 7	" "
$\frac{25}{26}$	Overcast	7 7	" " Ponds frozen over.
27	Overcast, intermittent snow	7	No ice in sight.
28 29	Overcast, intermittent snow Cloudy, snow during night	7 7	u u
30	Overcast, snow	2	46 46
Oct.	Clouds with an are	5	No ice in sight.
	Cloudy with snow	7	" "
3 4	!Partly cloudy		44 44
5	night.	i _	· · · · ·
6	Overcast, intermittent rain Overcast with snow and rain	5	
7 8	Rain and snow		" "
9	Overcast Intermittent snow		
10 11	Cloudy, snow during night	1 7	и и
$\frac{12}{13}$	Cloudy, snow during P.M		Slob ice along shore. Slob ice along shore.
14	Overcast with snow	5	No ice in sight.
15 16	Overcast with snow Overcast, gale during P.M. snow	5 - 1	Slob ice along shore. No ice in sight.
17	at night. Cloudy, drift all day	1 - 7	ш и
18 19	Cloudy, trace of snow	7	" "Cove half full slob ice.
20	Overcast, intermittent snow	3	No ice in sight.
21 22	Snow at night	7 7	Slob ice along shore. No ice in sight.
23 24	Overcast, intermittent snow	5	No ice in sight. Loose slob ice to horizon.
25	Cloudy, snow at night	1 - 5	No ice in sight.
26 27	Overcast Cloudy, trace of snow	7 5	No ice in sight. Loose slob ice to horizon.
28 29	Overcast	7	Slob ice in cove. Coves full slob ice.
30	Cloudy with snow	5	Slob ice in cove.
31	Partly cloudy	7	Loose ice to horizon.
Nov.	Overcast	7	No ice in sight.
2	Overcast	7	Cove full alob ice.
3 4	Overcast, trace of snow	7	Cove full slob ice. Cove full of ice.
5 6	Overcast to clear	1 - 5	Ice along shore. Ice along shore.
7	Overcast with snow	2	Loose ice in cove.

42 CHESTERFIELD INLET METEOROLOGICAL REPORT, 1939—Conc.

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain o	r Snow
						2	1	106	8 a.m.	8 p.m.
1939 November 8	29·59 29·62 29·78 29·83 30·06 30·26 30·27 30·02 30·35 29·89 30·11 30·34 30·36 30·16 29·74	18 18 3 - 9 - 12 - 10 0 0 8 7 11 - 7 - 4 19 20 5 - 11 19 28 27 17	8 - 2 - 18 - 24 - 22 - 18 - 13 - 10 - 19 - 4 4 3 - 10 - 17 - 15 17 3 8	E.W. NW. NW. NW. NE. NE. NW. S.E. NN. S. W. NN.	28 22 10 10 10 22 16 16 16 22 10 22 28 28 10 6 6 6 6 16	NW. NW. NW. NW. NE. NE. SE. N. Calm SW. NW. NW.	28 28 16 10 24 22 16 22 21 10 22 16 6 22 10 34 10 28	8	·03	-04
28	29 · 43 29 · 41 29 · 66	15 15 -17	- 1 -25 -23	W. NW. NW.	34 34 34	S. NW. NW.	28 42 28			· · · · · · · · · · · · · · · · · · ·

PORT HARRISON METEOROLOGICAL REPORT, 1939

	Mean	Air T	emp.	Wind,	8 a.m.	Wind.	8 p.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain	r Snow
						1 2		100	8 a.m.	8 p.m.
1939 July						!				
1	29 - 92	64	41	N.	12	, Ν.	30			.14
2	29 54	42	33	W.	24	s.	14	6	.33	
3	29 · 60	50	34	W.	12	NW.	14	6	-11	
4	29.83	48	35	N.	5	SW.	5			· · · · · · · ·
5	29 - 71	46	39	S.	20	s.	10			∙05
<u>6</u>	29.85	53	34	N.	6	S.	8	15	-01	· · · · · · <u>/ ;</u>
7	29.80	45	35	S.	22	W.	8	4	· · · · · · · ·	-01
8	29·76 29·75	41 41	34 33	W. W.	6 14	SW.	10	24 18		•08
9 0	29.60	44	35	sw.	16	N.	20 6	6	-09	.02
1	29.75	40	34	W.	10	ŵ.	8	18	Trace	Trace
2	29.92	44	34	ŚW.	8	s.	12	8	·03	·01
3	29.67	52	48	ŠE.	20	Ĕ.	22		01	.13
4	29.71	64	48	NE.	26	NE.	8		.13	Trace
5	29.94	61	46	NE.	26	NE.	18		10	11400
6	29.97	63	49	NE.	23	N.	24			
7	30.09	64	47	NE.	20	N.	18			
8	30 · 16	69	46	NE.	8	N.	10			
9	30 · 22	66	46	8.	6	S.	16			
0	29 - 97	56	41	s.	24	S.	14			.09
1	29.70	51	45	s.	20	s.	18		.09	.02
2	29 · 46	55	45	8.	14	SW.	18	<i></i>	Trace	-04
3]	29 · 69	46	39	SW.	14	S.	6	6	.02	· · · · · · · ·
4 [29.68	46	35	S.	6	W.	26	10	·01	.17
5	29.96	48	34	W.	18	SE.	12	7	-04	·20
<u>6</u>	29.55	57	36	SE.	30	SW.	30	10	· <u></u>	· · · · · · • •
7	29 - 63	40	37	w.	26	W.	14	8	Trace	
8	29-89	44	36	w.	12	SW.	14			.04
9	29.88	47	38	w.	5	S.	12	3	• • • • • • • •	• • • • • • • • • • • • • • • • • • • •
0	29·75 29·78	50 58	40 48	S. NE.	24 20	8. N.	5 24		'	·15

CHESTERFIELD INLET METEOROLOGICAL REPORT, 1939-Conc.

Date	General Weather	Visibility	Ice Conditions
20 21 22 23	Overcast with drift. Overcast with drift. Overcast with drift. Clear Clear Partly cloudy, light drift. Partly cloudy Snow Clear to overcast. Overcast Clear Clear to cloudy Overcast, intermittent snow. Clear, snow during P.M Cloudy to clear Partly cloudy Cloudy with snow Clear to overcast. Overcast. Overcast. Overcast. Overcast. Overcast.	Miles 1 - 5 1 - 3 7 7 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7	Loose ice in cove. No ice in sight. Cove full of ice. Ice extends two miles off shore. Ice extends two miles off shore. No ice in sight. """"""""""""""""""""""""""""""""""""
29	heavy drift. Overcast	1 - 5 0 0	a a a a a a

PORT HARRISON METEOROLOGICAL REPORT, 1939

			
Date	General Weather	Visibility	Ice Conditions
1939 July 1	Mostly overcast, rain during A.M. Rain at night	Miles 6 1-8 1-8	Ice moving out of river, loose packed from inshore to horizon in bay. River mouth blocked with ice, no ice in bay.
3 4	Rain at night Clear to partly cloudy	10 ± 10	Loose ice in harbour channel and bay. Loose packed ice in harbour and channel, bay ice extending about 6 miles from shore.
11 12 13 14 15 16 17	Cloudy to overcast. Rain, fog early A.M. Rain during A.M. fog during P.M. Twenty-four hours fog Cloudy with fog and rain Overcast, rain during P.M. Overcast, showers. Overcast with rain Rain all day. Mostly overcast. Mostly cloudy. Partly cloudy. Partly cloudy. Clear. Cloudy. Mostly overcast, thunderstorm	2 - 15 ½ - 10 ½ - 8 ½ - 8 ½ - 2 ½ - 2 ½ - 2 ½ - 2 ½ - 10 10 10 6	Harbour channel clear, bay ice close inshore. Loose ice in channel, distant in bay. Ice unchanged. Loose packed ice in channel, bay invisible. Loose packed ice in harbour, channel and bay. Loose ice in channel, bay invisible. Scattered ice in channel, close packed in bay. Scattered ice in channel, close packed in bay. Scattered ice in channel, loose packed in bay. Bay ice off shore, river and harbour clear. No ice in sight. "" "" "" "" "" "" "" "" "" "" "" "" "
22 23 24 25 26 27 28 29	with heavy rain. Cloudy, thunder and rain. Mostly overcast with rain. Overcast all day. Overcast with fog. Overcast. Rain with fog to overcast. Overcast with rain. Overcast with rain. Overcast with rain. Overcast with rain. Overcast to slightly cloudy.	5 1 - 4 2 - 8 2 - 8 2 - 8 2 - 4 3 - 6 12	" " Bay invisible. No ice in sight. " " " " " " " " " " " " " " " " " " "

44
PORT HARRISON METEOROLOGICAL REPORT, 1939—Cont.

		Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.		Precip	itation
Date	Mean Baro-	Vo.	Min.	Dir.	Vel.	Dir.	Vel.	Hours of	Rain o	r Snow
	meter	Max.	Min.	Dir.	Vei.	Dir.	vei.	Fog	8 a.m.	8 p.m.
1939										
August	30.01	57	39	N.	9	N.	9			ļ
3	29.89	54	35	Calm		ŝ.	16			
B	29.48	64	45	Ĕ.	16	Ĕ.	10			.02
	29.40	48	40	Ē.	16	s.	16			
5	29 · 84	58	46	S.	22	S.	5		∙13	
<u>}</u>	29.56	66	39	N.	9	, .				
	30.10	61	40	NE.	16	•				
	30·08 29·90	72 77	46 46	E. NE.	9	N.	22			• • • •
	29.90	62	50	1.2.	1	Ñ.	22	٠.	' '	·
	29.90	60	42	·						
	29.75	66	50	E.	9	8.	4			
	29.60	68	55	NE.	5	NW.	18		.06	
······	29·83 29·96	57 68	45 38	NE.	4	SW.	5 16		.02	
	30.01	69	45	NE.	. 8	N. W.	10			
	29.79	60	48	s.	9	s.	16	•••		Trace
	29 87	62	43	Ñ.	22	E.	9	·	.05	Trace
	30.00	60	45	s.	9	SE.	16		∙01	
)	29.90	57	45	W.	6	NW.	9	1	.02	
	29.95	62	44	NE.	16	NE.	9			
	29·96 29·92	65 60	46 46	NE.	9	E. NE.	9 6	•		
	29.92	62	42	SE.	3	SW.	6		• • • •	
	29.90	62	48	NW.	, š	w.	ğ			
	30.12	57	41	NW.	22	NW.	16		∙01	01
·	30 · 24	51	38	W.	22	NE.	6		∙01	·
	29.91	60	36	SE.	22	N. N.	9		• • • •	• • •
)	30·15 29·97	60 48	42 34	SE.	32	SE.	16 28			
	29.90	49	42	NW.	22	N.	9		-16	
	20 00							·		
Sept.						_				
! ?	30.00	49 46	33 37	SE.	6	S. SE.	16 22	. 00		
	29·77 29·46	55	44	S. S.	16 22	S.	22	20 24		··· ·i2
	29.33	55	38	ÑW.	3	NW.	28	20	-39	·01
	29.81	47	36	Ñ.	28	N.	16		-02	
	30 - 10	47	27	NE.	3	S.	9	4		
	29 · 88	47	41	S.	22	S.	3	4		.24
	29.89	46	38	NW.	9	or ·	10		.31	
	29·80 29·80	46 44	37 42	S. S.	28	SE. NW.	16 16	3	·05 ·14	·08
	30.01	46	36	NW.	9	N.	9		.01	Trace
	-									,
	30.16	47 47	30	NE.	6 22	SE. W.	9	· i1	· 14	:02
	29·79 29·85	45	39 38	SE. NW.	16	NW.	9	11	.04	Trace
· · · · · · ·	29.90	45	38	S.	ğ	SE.	6	. 4	.02	
	29.82	41	34	Ñ.	28	N.	28			.01
	30 · 13	41	33	N.	16	SW.	16.		.02	Trace
	29.85	41	33]	S.	22			
·	29 · 69	44	40	SW.	6	NW.	16	12	∙13	
h	29.93	44	36	N.	3	SW.	9	5		•12
· · · · · · · · · · · · · · · · · · ·	29·80 26·74	44 44	34 30	SE. N.	9	N.	40		-10	
	29.59	39	29	w.	6					
	29.70	39	26	sw.	16				Trace	
	29.66	38	32	1						,
· • • • • • • • • • • • • • • • • • • •	29.42	38	32	N.	28	G137			·08	10
• • • • • • • • • • • • • • • • • • • •	29.63	37	30	NW.	16	SW.	16 9		·09 ·23	.02
• • • • • • • • • • • • • • • • • • • •	29 · 63	38	32	S.	28	W.	ا ۳		.43	-07
	1			1	,		1		i e	

PORT HARRISON METEOROLOGICAL REPORT, 1939-Cont.

Date	General Weather	Visibility			Ice Conditions
1939		Miles	<u> </u>		
Aug.	Clear	15	No ic	e in sight.	
2 3	Clear. Partly cloudy Overcast with rain	12 10	"	"	
	Overcast with rain	4	"	¢.	
5	Cloudy	.8	"	"	
6 7	Fine and clear	12 15	ш	u	
8	Fine and clear	25	"	"	
9 10	Partly cloudy Partly cloudy	15 15	"	"	
11	Cloudy	10	"	"	
12 13	Overcast	10	"	"	
14	Overcast with rain	10 6	"	"	
15	Overcast with rain Fine and clear Partly cloudy	20	"	"	
16 17	Cloudy to overcast	20 4 - 8	"	"	
18	Overcast, rain during night	$\frac{1}{2} - \frac{3}{8}$	"	"	
19 20	Overcast to partly cloudy	1 - 8	"	"	
21	Overcast to partly cloudy Fine and clear	$\frac{1}{2} - 8$	"	"	
22	Partly cloudy	20	"	66 66	
23 24	Partly cloudy	20 12	"	"	
25	Partly cloudy to overcast, drizzle.	2 - 12	"	44	
26 27	Cloudy to overcast, rain	6 - 10 10 - 20	"	"	
	Partly cloudy to clear	10 - 20	"	"	
29	Clear to partly cloudy	20	"	"	
	Overcast Cloudy to overcast, rain during night.	8 - 15 4 - 10	"	"	
Sept.	Domiles aloudes		NT		
2	Partly cloudy Overcast, drizzle	12	"	in sight.	
3	Overcast, rain and fog	3 - 1	"	"	
5	Overcast to clear, rain during night.	$\begin{vmatrix} \frac{1}{2} - 3 \\ 2 - 15 \end{vmatrix}$	"	"	
6	Clear to partly cloudy	1 - 15	"	"	
7 ' 8	Clear to partly cloudy Overcast, rain Partly cloudy to overcast	1 - 8 1 - 10	"	"	
9]	Rain during night and A.M	5	"	"	
	Overcast with rain. Partly cloudy to overcast, occasional light rain.	$\frac{1}{2} - \frac{4}{4} - 15$	"	"	
12	Partly cloudy to overcast	10	"	"	
13	Overcast, intermittent rain Cloudy to overcast.	$\frac{1}{2} - 4$	"	"	
15	Cloudy to overcast .	$\frac{2}{3} - \frac{0}{10}$	"	"	
	Overcast, intermittent rain and snow.	1	"	"	
	Partly cloudy to overcast	2 - 6	"	"	
19	Overcast, rain during A.M	1 - 6	"	"	
	Partly cloudy to overcast Overcast with rain	4 - 10 4 - 8	"	"	
22	Partly cloudy to overcast .		"	**	
23	Partly cloudy to overcast, snow during night.	1 - 10 1 - 15	"	"	
	Partly cloudy to overcast, intermittent snow and rain. Cloudy to overcast, snow	$\begin{vmatrix} 1 - 8 \\ 2 - 8 \end{vmatrix}$	"	"	
26	Overcast	1 - 6	"	"	
27	Partly cloudy to overcast, snow.	2 - 8	"	"	
1	Overcast, intermittent rain and snow.	2 - 10	••	••	
29 30	Snow during night Partly cloudy to overcast	8 - 20 2 - 12	"	"	

 ${\bf 46}$ PORT HARRISON METEOROLOGICAL REPORT, 1939—Conc.

	Mean	Air T	emp.	Wind,	8 a.m.	Wind,	8 p.m.	Hours	Precip	itation
Date	Baro- meter	Max.	Min.	Dir.	Vel.	Dir.	Vel.	of Fog	Rain o	r Snow
								106	8 a.m.	8 p.m.
1939	,									
October	29.65	39	30	sw.	16	NW.	10		.17	.05
	i						1			
2	30.02	38	31	NE.	16	NE.	16			.05
} .	30.14	39 39	30 23	NW. NW.	4 3	NW. NE.	4		·02	-04
	30·11 30·18	39	23	NE.	10	E.	10 16		.04	• •
	29.94	38	28	SE.	22	SE.	16			
	29.53	39	34	S.	16	SW.	16	5	.02	.0∜
. 	29.67	39	32	W.	2	SW.	28		∙08	ن د
•••••	29.92	36	30	W.	16	W.	16		-01	.0
	29·90 29·88	35 35	30 28	NW. SE.	10	SE. NW.	3 6	•	.02	.0.
	29.77	35	27	NW.	10	N."	4	l	.07	Ĭ.
	29.90	35	26	N.	16	N. NW.	10	· · · · · ·		
. 	29.98	35	26	N.	22	NW.	10			.0.
	29.89	34	22	W.	3	SW.	3		⋅02	.0
	29.68	34	19	NE.	4	NW.	16			.0
	29.77	32	24	NW.	22	NW.	16		.08	•16
	29.80	30	22	NW.	22	NW.	10		-08	.08
. 	29.79	29	20	W	10	NW.	10		⋅08	.16
	29.77	32	25	SW.	16	S.	22		·20	-0
• • • • • • • • •	29·22 29·42	34	25	E. NW.	22	NW. N.	16	•	·13	·10
	29.42	34 30	25 18	N.	28	N.	22 34	•	·10	.0
	29.88	26	17	N.	28	N.	22		10	
	29.77	29	23	NW.	16	w.	10	· .	Trace	.05
	29.94	28	24	w.	10	SE.	4		.02	.09
••••	29.74	28	17	NE.	iŏ	N.	10		.25	·15
	29.78	25	4	N.	3	NE.	4	12		
. 	29.91	11	-9	N.	10	N.	5			
	29.86	30	6	S.	6	SE.	16		.95	.03
· · · · · · · · · · · · · · · · · · ·	29-90	30	21	SW.	3	NE.	10		∙06	· 0 4
November	20.20			N *	10	Colm		6		
· · · · · · · · · · · · · · · · · · ·	30·20 29·96	28 30	1 5	N. W.	10 28	Calm NW.	16		. 01	
	29.99	30	5	NE.	6	S. "	22			
	29.77	35	27	SW.	16	šw.	16	٠.	02	
	29 · 85	35	30	SW.	22	SW.	10			·01
. 	30 · 02	34	27 27	NW.	16	NE.	16		.07	
• • • • • • • • • • • • • • • • • • •	29 64	32	27	NE.	16	NE.	10		.04	.00
	29·49 29·81	32 31	27 19	W. W.	3 16	NW. SW.	26 16		·06	
	29.81	26	10	s.	22	E.	22		.09	.03
	29.54	28	14	ÑE.	16	Ñ.	28		·15	.08
	29 · 62	30	24	NW.	28	NW.	22	,	·10	.0
	30 · 05	28	22	NW.	16	W.	5		∙06	.0
. 	30.32	26	12	NE.	3	N.	3		.04	.1.
. 	30.05	26	-3	SE.	10	NE.	28		·02	.03
· · · · · · · · · · · · · · · · · · ·	29.68	18	15	E.	28 10	NE.	28		·21 ·01	.0.
	29·79 29·74	21 21	13 7	NE. NE.	16	E. NE.	16 22			-02
	30·11 30·31	25 24	15 18	N. NW.	22 6	N. SW.	16 22		·04 ·02	·01
	29.86	30	18	s.	34	s.	28		.09	.11
	29.73	31	12	Ñ.	6	ÑE.	16			Trace
	30 - 11	21	8	NE.	3	NE.	3		.02	.0
. 	30 · 46	24	5	NW.	10	SW.	16			Trace
	30.02	31	24 23	SW.	34	SW.	34			
	29.96	31	23 21	NW.	34 6	NW. W.	16 16			
• • • • • • • • • • • • • • • • • • •	29·88 29·71	29 29	20	SW. N.	16	sw.	10		.07	- 02
	29 · 40	29	5	SE.	28	NW.	22		.03	.02
	29.55	11	4	w.	28	NW.	28		.02	Trace
	40.00	11		17,	40	74 44 *	40		.02	

PORT HARRISON METEOROLOGICAL REPORT, 1939—Conc.

===	1	i i	
- .	6	*** ** · · · ·	
Date	General Weather	Visibility	Ice Conditions
1939		Miles	
Oct.	Cloudy to overcast, occasional	2 - 10	No ice in sight.
•	snow and showers.	2 - 10	
2	Partly cloudy to overcast, occa-	4 ~ 10	" "
	sional snow.	4 ~ 10	
3 4	Partly cloudy to overcast, snow Partly cloudy	20	u u
ŝ	Partly cloudy	žŏ	"
6	Partly cloudy Cloudy to clear.	, 20	46 46 46 46
7 8	Overcast Overcast, rain and snow	$\frac{1}{2} - 8$ $4 \sim 10$	
9	Overcast, scattered snow	4 ~ 8	" "
10	Overcast, scattered snow	8	" "
11	Intermittent snow	4 ~ 8	
12 13	Overcast	6 ~ 10 6 ~ 10	
14	Cloudy, snow flurries	10	u u
15	Overcast, scattered snow	8 ~ 20	Slob ice in river cove and along banks.
16	Cloudy to overcast. snow	6 ~ 15	No ice in sight.
17	Partly cloudy to overcast, snow throughout the day.	2 - 10	"
18	Cloudy, snow	4 - 12	" "
19	Intermittent snow	1 - 6	« « « «
20	Snow during night	2 - 8 1 - 6	,
21 22	Snow and rain Overcast, light snow	4 - 8	" "
23	Light snow	2 - 8	46 46
24	Partly cloudy to overcast	6 - 10	66 66 66 68
25	Partly cloudy to overcast, scat-	4 - 8	" "
26	tered snow. Light snow	2 ~ 8	Cove frozen and slob ice in river.
27	Overcast with snow	2 - 8	" "
28	Partly cloudy to overcast	1 - 6	No ice in sight.
29 30	Light snow	$\frac{2}{4} - \frac{15}{8}$	" "
31	Partly cloudy Light snow Light snow	3 - 8	" "
Nov.	Clear to partly cloudy	1 _ 20	No ice in sight.
2	Light snow	$\frac{1}{2} - \frac{20}{8}$	u u -
3	Clear to overcast	6 - 20	u u
	Overcast to clear, light snow	4 - 10	" "
	Overcast, snow and rain Overcast	2 - 10 8	u u
		2 - 6	" "
	Light snow during day Intermittent snow	3 - 8	ti ti
	Snow	4 - 8 1 - 8	" "
	Light snow with high drift		River frozen.
12	Light snow with high drift	· 3	River partly frozen.
	Intermittent snow, overcast.		No ice in sight.
14 15	Intermittent snow and showers Scattered snow	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	u u
16	Intermittent snow, overcast	1 - 8	uu
17	Overcast, light snow	4 - 12	u u
18	Cloudy to overcast with light	3 - 12	a u
19	Cloudy with light snow	3 - 8	u u
20	Light snow	8	46 46
21	Moderate snow	1 - 6	tt tt
	Overcast Intermittent snow	4 - 10 8	u u
	Overcast, light intermittent snow	8	"
25	Overcast	6	
	Overcast intermittent and	2 - 8	u u
	Overcast, intermittent snow Overcast, intermittent snow and	3 - 8	11 11
	sleet.	•	
29	Intermittent snow, heavy ground	1 - 8	" "
30	drift. Cloudy with intermittent snow	1 - 8	u u
	Trong mountains and mining	• "	
			

AIDS TO NAVIGATION IN HUDSON BAY AND STRAIT RADIO COAST AND DIRECTION FINDING STATIONS

	Call	Calling	Calling Wave	Working Wave	g Wave	Position	tion	House of County	Weather Forecast	Coast
101983	Sign	(See for K/cs.	(See footnote) K/cs. Metres	K/cs.	Metres	K/cs. Metres Latitude N. Longitude W.	Longitude W.	POTA JOST TO STROTT	(a)	
Port Churchill V A P	VAP	200	009	200	009	58° 46′ 32″	94° 10′ 31°	Continuous during season of navigation.	11.00 a.m. and 11.00 p.m.	6c. per word
Chesterfield Inlet	VBZ	25	900	200	009	63° 20′ 05″	90° 42′ 33°	Continuous during season	E.S.1.	be. per word
Nottingham Island V C B	VCB	925	000	95	909	63° 06′ 48°	77° 56′ 18″	Continuous during season	9	8c. per word
Cape Hopes Advance V A Y	VAY	200	009	200	99	61° 05′ 12″	69° 33′ 24″	Continuous during season	season	bc. per word
Resolution Island	V A W	200	99	200	000	61° 18′ 30″	64° 53′ 24″	Continuous during season of navigation.	11.20 a.m. and 11.20 p.m.,	6c. per word
~	_	_	-	-	_	-		_	E.S.T.	

All stations maintain watch on 500 K/cs. (600 metres) and with the exception of Resolution island, take and transmit bearings on 375 K/cs. (800 metres) after commication has been established on 500 K/cs. (600 metres). Resolution island takes bearings on 500 K/cs. (600 metres) and transmits bearings on 375 K/cs. (800 metres).

(or must covers area of Hudson bay, Hudson strait and that portion of the North Atlantic adjacent thereto.
(a) Forecast covers area of Hudson bay, Hudson strait and that portion of the North Atlantic applies to all other traffic. For forwarding charges beyond
(b) All messages relative to navigation are handled free of charge. The six-cent per word coast charge applies to all other traffic. For forwarding charges beyond
Port Churchill apply to any of above stations or see Canada Rate Sheet, International List of Coast and Ship Stations.

RADIO METEOROLOGICAL REPORTING STATION

		;		:		f	-		
	Call	Calling	Calling Wave	Workin	Working Wave	Position	E 013	House of Special	Coast
TO TO	Sign	K/cs.	Metres	K/cs.	Metres	K/cs. Metres K/cs. Metres Latitude N. Longitude W.	Longitude W.	TIONES OF CALVACE	Charge
Port Harrison	VAL	200	99	420	714	714 58° 27' 17"	78° 08′ 29″	Keeps watch on 500 K/cs. (600 metro) for per word trees for fifteen minute periods See note (b) commercing at every odd hour from 7.00 a.m. to 7.60 p.m. E.S.T. inclusive, during season of navigation.	6c. per word See note (b) above.

PATROL SHIP

Domosta	Aveillated	Continuous during season This vessel patrols Hudson strait during the season of navigation. Information in regard to her position may be obtained from any Radio Station in the Strait.
H	TOURS OF SELVICE	Continuous during season of navigation.
g Wave	Metres	902
Workin	K/cs.	425
Calling Wave Working Wave	K/cs. Metres K/cs. Metres	009
Calling	K/cs.	200
- 5	Sign	CGSN
200	Cacion	C.G.S. N. B. McLean

LIGHTS

Lometion	Posi	Position	***************************************	T) cure tion	D. con caba
TOTABOOT	Latitude N.	Latitude N. Longitude W.	Oualacte:	Edgy & Lion	AVCIDATES
†Goodwin island, Button islands group.	60° 41′ 31″	64° 40′ 22″	Flashing	250 ft.	On unpainted wooden pole.
Resolution island	61° 18′ 28″	64° 53′ 16″	Flashing	129 ft.	White square, wooden lantern on wooden skeleton base. One
Cape Hopes Advance	61° 05′ 14″	69° 33′ 23″	Fixed	270 It.	nash every 10 seconds. On unpainted wooden pole.
†Wales island	61° 51′ 37°	71° 58′ 19″	Flashing	150 ft.	On unpainted wooden pale.
†Ashe inlet	60° 31′ 40″	70° 33′ 27″	Flashing	191 ft.	On unpainted wooden pole.
†East end of Charles Island	62" 36' 40"	73° 56′ 09″	Flashing	150 ft.	On unpainted wooden pole.
†West end of Charles island	62° 42′ 30°	74° 40′ 00°	Flashing	40 ft.	On unpainted wooden pole.
†Nottingham island	63° 05′ 48″	77° 56′ 55°	Flashing	50 ft.	On unpainted wooden pole.
†Digges island	62° 35′ 20″	78° 06′ 42″	Flashing	65 ft.	On unprinted wooden pole.
Mansel island	62" 27' 00"	79° 38′ 00″	Flashing	41 ft.	On unpainted wooden pole.
tCoats island	62° 10′ 00″	83° 08′ 00″	Flashing	40 ft.	On unpainted woodes pole, surrounded by white lattice.
†Hubbart point	59° 21′ 00°	94° 40′ 00°	Flashing	50 ft.	On unpainted woodes pole.

†Unwatched.

C.G.S. N. B. McLEAN—HUDSON STRAIT PATROL SHIP GENERAL DIMENSIONS AND EQUIPMENT

The C.G.S. N. B. McLean is a twin screw ice breaking steamer of 6,500 indicated horse-power and with the following leading dimensions:—

Length (B.P.)	260 feet
Breadth (moulded)	
Gross tonnage	

The vessel is equipped with a patent towing winch furnished with both steel wire and manila towing hawsers, a powerful search light, two 7-ton derricks and two motor launches.

She also carries a diver and complete diving apparatus and the following salvage gear:—

- 1 Drake centrifugal pump, 10 inch.
- 1 Smart Turner centrifugal pump, 8 inch.
- 1 Duplex pump, 6 inch.

These pumps are completely equipped with flexible suction and discharge pipes, foot valves, syphons, etc., and all necessary auxiliaries.

One hundred and fifty feet of bronze flexible steam hose with connections, patching gear, shores, turnbuckles and all necessary tools are also provided.

The vessel is provided with a gyro compass and a recording echo sounder and radiotelegraph and radiotelephone apparatus are installed.

The N. B. McLean will be in Hudson Strait from the opening to the close of navigation each year and will maintain constant watch on 500 K/cs. (600 metres), call sign CGSN.

GLOSSARY OF TERMS USED IN ICE NAVIGATION

Floe A large mass of floating ice.
Pan A small floe or piece of ice that can be forced aside or slewed.
A field A large body of ice that may be seen around.
Land floeIce frozen fast to the shore.
Packed iceSmall pieces of ice closed together and held by the pressure of ice and currents.
Ice blink A peculiar pale yellow reflection on the sky indicating the presence of ice in the distance.
The ice packA large body of solid ice extending across the whole sea and through which it is impossible to advance.
Slack or open iceDetached ice that can be worked through. Ice is said to be slacking when it begins to open up so as to be navigable.
A lead A strip of navigable water opening into the pack.
Hummocky iceRough, uneven or thick ice.
SlobSnow affoat and forming into ice.
Water sky A dark or bluish appearance of the sky indicating open water beyond the ice pack.
Rafting Occurs when two pans meet with force either by the action of winds or currents, the edges are broken off and either rise on top of or pass under the body of the other.
Growler A more or less washed and rounded lump of ice which rolls about in the water; formed from broken up bergs or detached pieces of heavy old Arctic floe ice.
Collar ice The margin of ice frozen fast to an island or shore, presenting an abrupt wall against which the floating ice rises and falls with the tide.

GOV DOC CAI T 34-11/1939
CANADA DEPT OF TRANSPORT
NAVIGATION CONDITIONS ON THE
HUDSON BAY ROUTE FROM THE
SERIAL M2 40818697 GOV PUB



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